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# CONSIDERATION OF STOCKPILE LEGISLATION

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## HEARINGS

BEFORE THE

### SUBCOMMITTEE ON MILITARY CONSTRUCTION AND STOCKPILES

OF THE

### COMMITTEE ON ARMED SERVICES

### UNITED STATES SENATE

NINETY-FIFTH CONGRESS

SECOND SESSION

ON

H.R. 4895—TO AMEND THE STRATEGIC AND CRITICAL MATERIALS STOCK PILING ACT, AND FOR OTHER PURPOSES

S. 1198—TO AMEND THE STRATEGIC AND CRITICAL MATERIALS STOCK PILING ACT, AND FOR OTHER PURPOSES

S. 1810—TO AMEND THE STRATEGIC AND CRITICAL MATERIALS STOCK PILING ACT IN ORDER TO PRESCRIBE THE METHOD FOR DETERMINING THE QUANTITY OF ANY MATERIAL TO BE STOCK-PILED UNDER SUCH ACT, AND FOR OTHER PURPOSES

S. 2167—TO AUTHORIZE SELLING OF 30,000 TONS OF TIN FROM NATIONAL OR SUPPLEMENTAL STOCKPILE WITH PROCEEDS TO BE USED TO PURCHASE NOT TO EXCEED 250,000 TONS OF COPPER FOR THE NATIONAL STOCKPILE

S. 2181—TO AUTHORIZE A CONTRIBUTION FROM THE UNITED STATES TO THE TIN BUFFER STOCK ESTABLISHED UNDER THE FIFTH INTERNATIONAL TIN AGREEMENT

S. 2575—TO AMEND AND REVISE THE STRATEGIC AND CRITICAL MATERIALS STOCK PILING ACT, AND FOR OTHER PURPOSES

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S. 2702—TO AUTHORIZE THE DISPOSAL OF UP TO 45 THOUSAND LONG TONS OF TIN FROM THE NATIONAL AND SUPPLEMENTAL STOCKPILE AND TO UTILIZE A PORTION OF SUCH TIN, OR THE PROCEEDS FROM THE SALE THEREOF, TO OBTAIN UP TO 225,000 SHORT TONS OF COPPER FOR THE NATIONAL STOCKPILE, AND FOR OTHER PURPOSES

MARCH 8, 9, 1978

Printed for the use of the Committee on Armed Services

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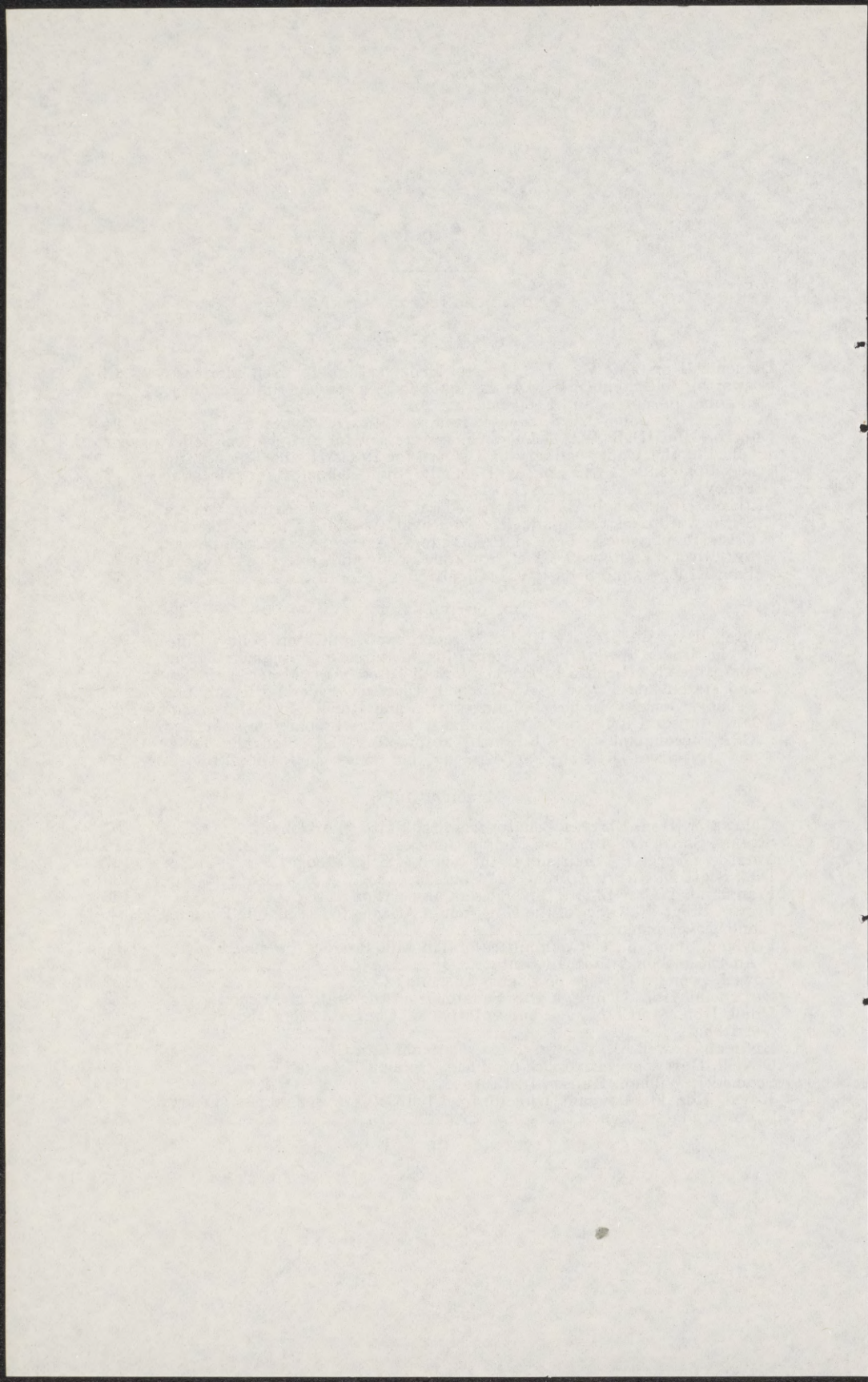
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## CONSIDERATION OF STOCKPILE LEGISLATION

WEDNESDAY, MARCH 8, 1978

U.S. SENATE,  
COMMITTEE ON ARMED SERVICES,  
SUBCOMMITTEE ON MILITARY CONSTRUCTION AND STOCKPILES,  
*Washington, D.C.*

The subcommittee met at 9:05 a.m. in room 1318 Dirksen Senate Office Building, Hon. Gary Hart, chairman, presiding.

Present: Senators Hart, Hatfield, Thurmond, and Bartlett.

Also present: James C. Smith, professional staff member; John T. Ticer, chief clerk; Edward B. Kenney, professional staff member; Jeanie Killgore, clerical assistant; Lew Ashley, assistant to Senator Hatfield; and Ron Lehman, assistant to Senator Bartlett.

### OPENING STATEMENT BY SENATOR GARY HART, CHAIRMAN

Senator HART. The hearing will come to order.

This morning the Senate Armed Services Subcommittee on Military Construction and Stockpiles will begin the first of 2 days of hearings on all pending stockpile legislation.

For the record there are seven stockpile bills pending before the subcommittee. They are:

First of all, H.R. 4895, is a House-passed bill that provides for the establishment of a fund to account for stockpile transactions;

S. 1198, a bill introduced by Senator Chiles that is identical to H.R. 4895;

S. 1810—a bill introduced by Senator McClure to provide a formula for the determination of stockpile goals as a function of imports;

S. 2167—a bill introduced by Senator Domenici that involves the disposal of tin and the acquisition of copper;

S. 2181—an administration bill to give 5,000 tons of tin to the international buffer stockpile;

S. 2575—a comprehensive bill that I have authored to completely revise and update the Stock Piling Act;

And finally S. 2635—an administration bill that provides for the disposal of 11 different excess stockpiled commodities.

[The bills follow:]

[H.R. 4895, 95th Cong., 1st sess.]

AN ACT To amend the Strategic and Critical Materials Stock Piling Act, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section 3 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98b) is amended—

(1) by striking out the period at the end of paragraph (e) and inserting in lieu thereof “; and”; and



(2) by adding after such paragraph the following new paragraph:

"(f) establish a program which (1) shall provide for the acquisition of strategic and critical materials from foreign countries through barter of goods owned by the United States, and (2) shall include provisions adequate to assure the active cooperation and participation of each appropriate department and agency, as determined by the President, having custody of goods owned by the United States which are deemed suitable for barter with foreign countries."

SEC. 2. Section 4 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98c) is amended by adding at the end the following new sentence: "Each report submitted under this section shall include a detailed report on the efforts of each appropriate department and agency (as determined by the President under section 3(f)) to acquire strategic and critical materials through barter with foreign countries under the program established pursuant to section 3(f)."

SEC. 3. Section 8 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98g) is amended to read as follows:

"SEC. 8. (a) (1) No funds may be appropriated or obligated for procurement of materials under this Act unless funds for such procurement have been specifically authorized by law.

"(2) There is authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, for transportation, maintenance, rotation, storage, refining, and processing of the materials to be acquired under this Act, such sums as the Congress, from time to time, may deem necessary to carry out the provisions of this Act.

"(3) Funds appropriated for procurement of materials under this Act, and funds appropriated for transportation, maintenance, rotation, storage, refining, and processing materials to be acquired under this Act, including funds heretofore appropriated for such purposes, shall remain available to carry out the purposes for which appropriated until expended.

"(b) Excess materials in the inventory maintained under the Defense Production Act of 1950 (50 U.S.C. App. 2061-2166) and excess materials in the national stockpile and supplemental stockpile, the disposition of which is authorized by law, shall be available, without reimbursement, for transfer at fair market value as payment for expenses (including transportation and other accessorial expenses) of acquisition of materials, or of refining, processing, or otherwise beneficiating materials, or of rotating materials pursuant to section 3."

SEC. 4. Section 9 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98h) is amended to read as follows:

"SEC. 9. (a) There is established in the Treasury of the United States a separate fund to be known as the Strategic and Critical Materials Procurement Fund (hereinafter in this section referred to as the 'fund'). All moneys received after the effective date of this section on account of sales of materials under this Act shall be covered into the fund.

"(b) (1) Moneys covered into the fund shall be available, when appropriated therefor, only for the procurement, transportation, maintenance, rotation, storage, refining, or processing of materials under this Act.

"(2) Any moneys covered into the fund which are appropriated shall remain available, without fiscal year limitation, for the purposes for which they are appropriated until they are expended.

"(c) The Administrator of General Services shall submit a report to the Congress not later than the first day of January of each year on the financial condition and the results of the operation of the fund during the preceding fiscal year and on its expected condition and operations during the next fiscal year. Such report shall be printed as a House document of the session of the Congress to which the report is made."

SEC. 5 (a) Except as provided in subsection (b), the amendments made by this Act shall take effect on the date of enactment of this Act.

(b) The amendment made by section 3 shall apply with respect to fiscal year 1978 and each fiscal year thereafter.

Passed the House of Representatives March 31, 1977.

Attest:

EDMUND L. HENSHAW, Jr., *Clerk.*



[S. 1198, 95th Cong., 1st sess.]

A BILL To amend the Strategic and Critical Materials Stock Piling Act, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That section 3 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98b) is amended—

(1) by striking out the period at the end of paragraph (e) and inserting in lieu thereof “; and?”; and

(2) by adding after such paragraph the following new paragraph:

“(f) establish a program which (1) shall provide for the acquisition of strategic and critical materials from foreign countries through barter of goods owned by the United States, and (2) shall include provisions adequate to assure the active cooperation and participation of each appropriate department and agency, as determined by the President, having custody of goods owned by the United States which are deemed suitable for barter with foreign countries.”.

SEC. 2. Section 4 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98c) is amended by adding at the end the following new sentence: “Each report submitted under this section shall include a detailed report on the efforts of each appropriate department and agency (as determined by the President under section 3(f)) to acquire strategic and critical materials through barter with foreign countries under the program established pursuant to section 3(f).”.

SEC. 3. Section 8 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98g) is amended to read as follows:

“SEC. 8. (a) (1) No funds may be appropriated or obligated for procurement of materials under this Act unless funds for such procurement have been specifically authorized by law.

“(2) There is authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, for transportation, maintenance, rotation, storage, refining, and processing of the materials to be acquired under this Act, such sums as the Congress, from time to time, may deem necessary to carry out the provisions of this Act.

“(3) Funds appropriated for procurement of materials under this Act, and funds appropriated for transportation, maintenance, rotation, storage, refining, and processing materials to be acquired under this Act, including funds heretofore appropriated for such purposes, shall remain available to carry out the purposes for which appropriated until expended.

“(b) Excess materials in the inventory maintained under the Defense Production Act of 1950 (50 U.S.C. App. 2061–2166) and excess materials in the national stockpile and supplemental stockpile, the disposition of which is authorized by law, shall be available, without reimbursement, for transfer at fair market value as payment for expenses (including transportation and other accessorial expenses) of acquisition of materials, or of refining, processing, or otherwise benefiting materials, or of rotating materials, pursuant to section 3.”.

SEC. 4. Section 9 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98h) is amended to read as follows:

“SEC. 9. (a) There is established in the Treasury of the United States a separate fund to be known as the Strategic and Critical Materials Procurement Fund (hereinafter in this section referred to as the ‘fund’). All moneys received after the effective date of this section on account of sales of materials under this Act shall be covered into the fund.

“(b) (1) Moneys covered into the fund shall be available, when appropriated therefor, only for the procurement, transportation, maintenance, rotation, storage, refining, or processing of materials under this Act.

“(2) Any moneys covered into the fund which are appropriated shall remain available, without fiscal year limitation, for the purposes for which they are appropriated until they are expended.

“(c) The Administrator of General Services shall submit a report to the Congress not later than the first day of January of each year on the financial condition and the results of the operation of the fund during the preceding fiscal year and on its expected condition and operations during the next fiscal year. Such report shall be printed as a Senate document of the session of the Congress to which the report is made.”.



SEC. 5. (a) Except as provided in subsection (b), the amendments made by this Act shall take effect on the date of enactment of this Act.

(b) The amendment made by section 3 shall apply with respect to fiscal year 1978 and each fiscal year thereafter.

[S. 1810, 95th Cong., 1st sess.]

A BILL To amend the Strategic and Critical Materials Stock Piling Act in order to prescribe the method for determining the quantity of any material to be stockpiled under such Act, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That this Act may be cited as the "Strategic and Critical Materials Stock Piling Act Amendments of 1977".

SEC. 2. (a) Section 2(a) of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98h(a)) is amended to read as follows:

"(a) To effectuate the policy set forth in the first section of this Act, determinations shall be made from time to time, as provided in this section, regarding which materials are strategic and critical to the United States and the quantities of such materials that should be stockpiled under this Act."

(b) Section 2 of such Act is further amended by redesignating subsection (b) as subsection (c) and adding after subsection (a), as amended by subsection (a) of this section, a new subsection (b) to read as follows:

"(b) (1) The President shall appoint an interagency committee composed of representatives from appropriate departments and agencies of the Government to determine which materials are to be acquired under this Act and what classification such materials shall be assigned under paragraph (2).

"(2) Materials selected to be stockpiled under this Act shall be classified by the interagency advisory committee provided for in paragraph (1) as being one of the three classes prescribed below, as appropriate:

"(A) Class A materials are those materials not produced in the United States or produced in the United States in limited quantities, are necessary for the security of the United States, are essential to the economy of the United States, and are primarily obtained from foreign sources.

"(B) Class B materials are those materials produced in the United States but are not available in sufficient quantities in the United States to offer the potential for meeting total domestic needs, are necessary to the security of the United States, are essential to the economy of the United States, and are obtained to a substantial extent from foreign sources.

"(C) Class C materials are those materials produced in substantial quantities in the United States, are available in sufficient quantities to meet total domestic requirements, are necessary to the security of the United States, are essential to the economy of the United States, and are obtained to a lesser extent from foreign sources.

"(3) The quantity of any material to be acquired under this Act (stockpile objective) shall be determined as follows:

"(A) The stockpile objective for any material designated as a Class A material shall be a quantity equal to three years' domestic net imports of such material.

"(B) The stockpile objective for any material designated as a class B material shall be a quantity equal to two years' domestic net imports of such material.

"(C) The stockpile objective for any material designated as a class C material shall be a quantity equal to one years' net imports of such material.

"(4) Subject to appropriate adjustments under paragraph (5), a year's domestic net imports of any material for purposes of clause (A), (B), or (C) of paragraph (3) shall be a quantity of the material equal to the average annual imports of such material during the five calendar years immediately preceding the calendar year in which the determination for the stockpile objective is being made (base period), plus the average annual sales or minus the average annual purchases of such material made from the stockpile during such five-year base period, reduced by the average annual exports of such material during such five-year base period.

"(5) In determining the quantity under paragraph (4) of any material to be acquired for the stockpile appropriate adjustments shall be made in the com-



putations made under such paragraph in the case of any material which is acquired in both its crude form and in its refined or processed form so as to avoid duplicate calculations with respect to the same material.

"(6) The stockpile objective for any material acquired for the stockpile under this Act shall be reviewed once every four years by the interagency committee referred to in paragraph (1). A revised objective for such material shall be established only if the average annual quantity of imports of such material during the five calendar years immediately preceding the current calendar year increased or decreased by more than 10 per centum of the average annual quantity of such material imported during the base period applicable to such material at the time of the preceding mandatory review under this paragraph.

"(7) Nothing in paragraph (6) shall be construed to prohibit the head of the agency and the advisory committee referred to in paragraph (2) from conducting a review of the stockpile objective for any material at any time other than that prescribed by paragraph (6) but in any case in which such committee determines that the stockpile objective for any material should be computed in a manner other than that prescribed in paragraph (3), the head of the agency shall notify the Congress in writing of that determination and set forth the proposed new formula for computing the stockpile objective for such material. The new formula shall become effective with respect to such material unless, within a period of ninety days after the day on which the Congress was notified by the head of the agency, either House of the Congress agrees to a resolution disapproving such formula."

(c) Section 2 of such Act is further amended by adding at the end thereof a new subsection as follows:

"(d) As used in this section, the term 'head of the agency' means the head of the agency charged with responsibility for administering the provisions of this Act."

SEC. 3. Section 3 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98b) is amended—

(1) by striking out the period at the end of paragraph (e) and inserting in lieu thereof "; and"; and

(2) by adding after such paragraph the following new paragraph:

"(f) establish a program which (1) shall provide for the acquisition of strategic and critical materials from foreign countries through barter of goods owned by the United States, and (2) shall include provisions adequate to assure the active cooperation and participation of each appropriate department and agency, as determined by the President, having custody of goods owned by the United States which are deemed suitable for barter with foreign countries."

SEC. 4. Section 4 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98c) is amended by adding at the end the following new sentence: "Each report submitted under this section shall include a detailed report on the efforts of each appropriate department and agency (as determined by the President under section 3(f)) to acquire strategic and critical materials through barter with foreign countries under the program established pursuant to section 3(f)."

SEC. 5. Section 8 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98g) is amended to read as follows:

"SEC. 8. (a) (1) No funds may be appropriated or obligated for procurement of materials under this Act unless funds for such procurement have been specifically authorized by law.

"(2) There is authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, for transportation, maintenance, rotation, storage, refining, and processing of the materials to be acquired under this Act, such sums as the Congress, from time to time, may deem necessary to carry out the provisions of this Act.

"(3) Funds appropriated for procurement of materials under this Act, and funds appropriated for transportation, maintenance, rotation, storage, refining, and processing materials to be acquired under this Act, including funds heretofore appropriated for such purposes, shall remain available to carry out the purposes for which appropriated until expended.

"(b) Excess materials in the inventory maintained under the Defense Production Act of 1950 (50 U.S.C. App. 2061-2166) and excess materials in the national stockpile and supplemental stockpile, the disposition of which is authorized by law, shall be available, without reimbursement, for transfer at fair market



value as payment for expenses (including transportation and other accessorial expenses) of acquisition of materials, or of refining, processing, or otherwise beneficiating materials, or of rotating materials, pursuant to section 3."

Sec. 6. Section 9 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98h) is amended to read as follows:

"Sec. 9. (a) There is established in the Treasury of the United States a separate fund to be known as the Strategic and Critical Materials Procurement Fund (hereinafter in this section referred to as the 'fund'). All moneys received after the effective date of this section on account of sales of materials under this Act shall be covered into the fund.

"(b) (1) Moneys covered into the fund shall be available, when appropriated therefor, only for the procurement, transportation, maintenance, rotation, storage, refining, or processing of materials under this Act.

"(2) Any moneys covered into the fund which are appropriated shall remain available, without fiscal year limitation, for the purposes for which they are appropriated until they are expended.

"(c) The Administrator of General Services shall submit a report to the Congress not later than the first day of January of each year on the financial condition and the results of the operation of the fund during the preceding fiscal year and on its expected condition and operations during the next fiscal year. Such report shall be printed as a House and Senate document of the session of the Congress to which the report is made."

Sec. 7. (a) The amendments made by section 2 of this Act shall become effective on the first day of the first calendar month following the month in which this Act is enacted.

(b) The amendments made by sections 3, 4, and 6 of this Act shall take effect on the date of enactment of this Act.

(c) The amendment made by section 5 of this Act shall apply with respect to fiscal year 1978 and each fiscal year thereafter.

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[S. 2167, 95th Cong., 1st sess.]

A BILL To assist in increasing the depressed price of copper in the United States by authorizing the purchase of a quantity of such metal for inclusion in the national stockpile, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That notwithstanding any other provision of law, the Administrator of General Services shall (1) sell thirty thousand tons of tin from the stocks of the national stockpile (established under the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98-98h-1) or the supplemental stockpile (established under section 104(b) of the Agricultural Trade Development and Assistance Act of 1954), or from both such stockpiles, and (2) use the proceeds of such sale to purchase a quantity of copper not in excess of two hundred and fifty thousand tons. Any copper purchased under authority of this Act shall be added to and made a part of the national stockpile referred to above.

---

[S. 2181, 95th Cong., 1st sess.]

A BILL To authorize a contribution by the United States to the Tin Buffer Stock established under the Fifth International Tin Agreement

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the President, on behalf of the United States, is authorized to contribute with or without monetary compensation, up to five thousand long tons of tin metal to the Tin Buffer Stock established under the Fifth International Tin Agreement at such time, and in accordance with such conditions as he may establish.

Sec. 2. Notwithstanding any other provision of law, the Administrator of the General Services Administration is authorized to transfer to the International Tin Council without reimbursement such amount of tin metal not exceeding five thousand long tons as may be directed by the President for the purpose set forth in section 1: *Provided*, That such amount has been determined to be excess pursuant to section 2 of the Strategic and Critical Materials Stock Piling Act.



SEC. 3. Any proceeds accruing to the United States as a result of liquidation of the Tin Buffer Stock or prior refund of the United States contribution to the Tin Buffer Stock shall be treated in the same manner as proceeds from the disposition of materials determined to be excess pursuant to section 2 of the Strategic and Critical Materials Stock Piling Act.

SEC. 4. Any amount of tin metal accruing to the United States as a result of liquidation of the Tin Buffer Stock or prior refund of the United States contribution to the Tin Buffer Stock shall be incorporated in the strategic and critical materials stockpile to the extent required to meet the objective for tin metal determined pursuant to section 2 of the Strategic and Critical Materials Stock Piling Act. Any tin metal not so incorporated shall be treated in the same manner as materials determined to be excess pursuant to section 2 of said Act.

SEC. 5. The President shall transmit to the Congress at the beginning of each fiscal year a written report detailing the activities of the Tin Buffer Stock, and such other pertinent information on its administration as will enable the Congress to evaluate the participation of the United States in the Fifth International Tin Agreement.

---

[S. 2575, 95th Cong., 2d sess.]

A BILL To amend and revise the Strategic and Critical Materials Stockpiling Act

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Strategic and Critical Materials Stockpiling Act (60 Stat. 596; 50 U.S.C. 98-98h) is amended to read as follows: "That this Act may be cited as the 'National Defense Stockpile Act'.

#### "POLICY AND PURPOSE

"SEC. 2. It is the policy of the Congress and the purpose and intent of this Act to provide for the acquisition and retention of stocks of certain strategic and critical materials in order to preclude, whenever possible, a dangerous and costly dependence by the United States upon foreign sources for supplies of such materials in times of national emergency.

#### "DEFINITIONS

"SEC. 3. For the purposes of this Act—

"(1) The term 'strategic and critical materials' means those materials which are not found or produced in the United States in sufficient quantity to sustain the United States during a national emergency.

"(2) The term 'national emergency' means a period of time during which the national security of the United States is jeopardized by the threat or action of a foreign power.

#### "MATERIALS TO BE ACQUIRED; PRESIDENTIAL AUTHORITY AND GUIDELINES

"SEC. 4. (a) The President shall determine from time to time which materials are strategic and critical materials for the purposes of this Act and shall determine the quantity, and form in which such materials shall be acquired and stored. Such materials when acquired, together with all other materials described in section 5 of this Act, shall constitute and be collectively known as the National Defense Stockpile.

"(b) The President shall make the determinations required to be made under subsection (a) of this section on the basis of the following principles:

"(1) that the purpose of the National Defense Stockpile is to serve the interest of national security only and is not to be used for economic or budgetary purposes;

"(2) that the quantities of materials to be stockpiled should be sufficient to sustain the United States during a national emergency extending up to three years;

"(3) that the needs of the civilian population during a national emergency, as well as the needs of the armed forces, should be considered and provided for in the National Defense Stockpile; and

"(4) that the stockpile goals for any material (the quantity of such material determined to be required for the National Defense Stockpile) should



not be changed unless a revised determination is made that would change the existing stockpile goal by more than 20 per centum.

#### "CONSTITUTING THE NATIONAL DEFENSE STOCKPILE

"SEC. 5. (a) On and after October 1, 1978, the National Defense Stockpile shall consist of—

"(1) those materials acquired under this Act and contained in the so-called national stockpile on September 30, 1978;

"(2) those materials contained in the supplemental stockpile (established by section 104(b) of the Agricultural Trade Development and Assistance Act of 1954) on September 30, 1978;

"(3) those materials of stockpile grade acquired under the provisions of the Defense Production Act of 1950 and contained in the so-called Defense Production Inventory on September 30, 1978; and

"(4) those materials acquired under this Act on and after October 1, 1978.

"(b) Any material that is (1) owned by any department or any agency of the United States, (2) determined by such department or agency to be surplus to its needs and responsibilities, and (3) required for the National Defense Stockpile, shall be transferred to the National Defense Stockpile without reimbursement to such department or agency. All costs required to effect such transfer shall be paid by the Administrator of the National Defense Stockpile (appointed by the President under section 7).

#### "ACQUISITION AND DISPOSAL AUTHORITY

"SEC. 6. Except for disposals and acquisitions made under the authority of sections 7(a) (3) and (4) and 8(a), no acquisition of any material may be made for, and no disposal of any material may be made from, the National Defense Stockpile unless such acquisition or disposal, as the case may be, including the quantity of the acquisition or disposal, has been specifically authorized by legislation enacted after October 1, 1978.

#### "STOCKPILE MANAGEMENT

"SEC. 7. (a) The President shall appoint an administrator of the National Defense Stockpile (hereinafter referred to as the 'Administrator'). The Administrator shall have overall management responsibility for such stockpile. In carrying out his responsibility under this Act, the Administrator shall—

"(1) acquire the materials determined by the President to be necessary for the National Defense Stockpile;

"(2) provide for the proper storage, security, and maintenance of materials acquired for the National Defense Stockpile;

"(3) provide for the refining or processing of any material acquired for the National Defense Stockpile when necessary to convert such material into the form best suitable for storage and subsequent use;

"(4) provide for the rotation of any strategic and critical material in the National Defense Stockpile where necessary to prevent deterioration by replacement of such material with an equivalent quantity of substantially the same material; and

"(5) dispose of such quantities of strategic and critical materials in the National Defense Stockpile as are determined to be excess to the national emergency needs of the United States.

"(b) Except as otherwise provided herein, acquisitions of strategic and critical materials under this Act shall be made in accordance with established Federal procurement practices, except that—

"(1) competitive bidding procedures shall be used in all cases; and

"(2) reasonable efforts shall be made to avoid undue disruption of the commercial market for such materials.

"(c) Except as otherwise provided herein, disposals of materials from the National Defense Stockpile shall be made in accordance with established Federal practices, except that—

"(1) competitive bidding procedures shall be used in all cases;

"(2) reasonable efforts shall be made to avoid undue disruption of the commercial market for such materials; and

"(3) no disposal may be made from the National Defense Stockpile to any foreign interest,



"(d) (1) The Administration shall establish a program under which strategic and critical materials may be acquired and disposed of by barter when the acquisition or disposal of such materials by such means is practical and in the best interest of the United States.

"(2) The Administration may use excess stockpiled materials needed for the National Defense Stockpile.

"(3) To the extent otherwise authorized by law, the Administrator may use surplus commodities owned by the United States to barter for materials needed for the National Defense Stockpile.

"(e) The Administrator may acquire any material for, or dispose of any material from, the National Defense Stockpile without regard to the provisions of subsections (b), (c), and (d) of this section but only if he notifies the Committees on Armed Services of the Senate and the House of Representatives in writing of the proposed acquisition or disposal at least thirty days before any obligation of the Federal Government is made, and includes in the notification to such committees his reasons for not complying with any or all of the provisions of such subsections.

#### "SPECIAL AUTHORITY TO THE PRESIDENT

"SEC. 8. (a) The President may order the use, sale, or other disposition of any material contained in the National Defense Stockpile when in his judgment such use, sale, or other disposition is required for purposes of the common defense in response to a national emergency.

"(b) Any order issued by the President under subsection (a) of this section shall be promptly reported by the President, in writing, to the Committees on Armed Services of the Senate and the House of Representatives.

#### "AUTHORIZATION FOR APPROPRIATIONS FOR ROUTINE OPERATIONS

"SEC. 9. There are authorized to be appropriated to the Administrator such sums as the Congress may from time to time deem necessary to provide for the transportation, processing, refining, storage, security, maintenance, and rotation of materials acquired for the National Defense Stockpile. Funds appropriated to the Administrator for such purposes shall remain available to carry out the purposes for which appropriated for a period of two fiscal years.

#### "ESTABLISHMENT OF THE STOCKPILE TRANSACTION FUND

"SEC. 10. (a) There is established in the Treasury of the United States a separate fund to be known as the National Defense Stockpile Transaction Fund (hereinafter referred to as the 'fund'). All moneys received from the disposal of materials from the National Defense Stockpile and all moneys appropriated for the acquisition of materials for the National Defense Stockpile shall be credited to the fund.

"(b) Moneys credited to the fund shall be available, as provided in appropriation Acts, only for the acquisition of strategic and critical materials for the National Defense Stockpile.

"(c) After September 30, 1981, any balance of money in the fund at the beginning of any fiscal year in excess of the highest amount expended from the fund for the acquisition of materials for the National Defense Stockpile in any of the three preceding fiscal years shall be transferred to the general fund of the Treasury.

#### "ADVISORY COMMITTEES

"SEC. 11. The President may appoint advisory committees composed of members from industries concerned with specific materials if the President deems such action appropriate. It shall be the function of any such advisory committee to advise the President and the Administrator regarding the best procedures for the acquisition, transportation, processing, refining, storage, security, maintenance, rotation, and disposal of such materials under this Act.

#### "REPORT TO CONGRESS

"SEC. 12. (a) The President shall submit to the Congress every six months a written report detailing operations under this Act, including such pertinent information on the administration of this Act as will enable the Congress to evalu-



ate the effectiveness of the program provided for under this Act and to determine the need for additional legislation.

"(b) The President shall also include in each report submitted to the Congress under subsection (a) of this section a statement and explanation of the financial status of the fund and the anticipated expenditures to be made from the fund during the next year."

SEC. 2. The amendment made by the first section of this Act shall become effective on October 1, 1978.

SEC. 3. Nothing contained in the amendment made by the first section of this Act shall be construed as amending, repealing, replacing, or otherwise affecting the authority contained in any Act, other than the Strategic and Critical Materials Stock Piling Act as in effect on September 30, 1978, regarding the acquisition of strategic and critical materials for the United States.

SEC. 4. Any reference contained in any statute, rule, regulation, directive, Executive order, or other document, on and after the effective date of this Act, to the Strategic and Critical Materials Stock Piling Act shall be deemed to refer to the National Defense Stockpile Act.

[S. 2635, 95th Cong., 2d sess.]

A BILL To authorize the disposal of eleven materials from the national and supplemental stockpiles

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That subject to the provisions of subsection (b) and notwithstanding the provisions of section 3 of the Strategic and Critical Materials Stock Piling Act, the Administrator of General Services Administration is authorized to dispose of the following materials, in the quantities specified, from the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98-98h) and the supplemental stockpile established pursuant to section 104(b) of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1704) :

- (1) asbestos, chrysotile, four thousand short tons ;
- (2) antimony, two thousand five hundred short tons ;
- (3) mica, muscovite film, forty-five thousand pounds ;
- (4) silver, sixty-two million five hundred thousand troy ounces ;
- (5) tin, twenty-five thousand long tons ;
- (6) aluminum oxide, crude, three thousand five hundred short tons ;
- (7) diamond dies, ten thousand pieces ;
- (8) industrial diamond stones, four million five hundred thousand carats ;
- (9) castor oil, sebacic acid, one million two hundred fifty thousand pounds ;
- (10) bismuth, five hundred thousand pounds ; and
- (11) iodine, seven hundred and fifty thousand pounds.

(b) In disposing of the materials referred to in subsection (a), the Administrator of General Services shall fix the time and method of disposition with due regard to protecting the United States against avoidable loss and protecting producers, processors, and consumers against avoidable disruption of their usual markets in the materials concerned.

Senator HART. Our general plan is to hear administration witnesses today with emphasis on overall stockpile policy and industry witnesses tomorrow with emphasis on specific commodities. In addition, interested members of the Senate will be also testifying. It may be necessary to recall some administration witnesses tomorrow if unanswered questions remain. I also anticipate that at some point today, we may go into executive session to consider points that are sensitive from a national security viewpoint.

It is my hope that as a result of these hearings the subcommittee will be in a position to recommend action on all or part of the proposals before us.

We have many witnesses scheduled and I hope we get to them all today and tomorrow, but we are constrained in time by the Senate rules which will not let us meet for more than 2 hours after the Senate



convenes. I will, however, keep the record of these hearings open until March 15, 1978, so that any interested party may submit information for consideration for inclusion in the record.

At this point I would like to recognize the newest member of the Senate Armed Services Committee Senator Hatfield, of Montana, for opening remarks that he might wish to make.

Senator HATFIELD. Mr. Chairman, I am pleased that you have scheduled these hearings to consider S. 2575, a bill to amend and revise the Strategic and Critical Materials Stock Piling Act and all other stockpile matters pending before the subcommittee. The hearings are particularly timely. First, because S. 2575 proposes revisions to the existing Strategic and Critical Materials Stock Piling Act which has become badly outdated since its adoption in 1939. While changes have occurred over the years, it is clear that improvements are needed in order to bring the strategic stockpile in line with the Nation's current requirements. As the chairman has indicated, we have billions of dollars worth of materials stored that now are beyond our perceived needs. On the other hand, we are deficient in many other commodities that should be acquired expeditiously.

This proposal to revise the Stockpile Act appears to offer an opportunity to improve the management of the stockpile program as well as to make better use of the resources provided by our taxpayers. I am also happy to note that the bill proposes to strengthen congressional control over the stockpiles by requiring congressional authorization for both the acquisition and the disposal of stockpile materials. While I reserve the right to offer specific recommendations later with regard to the Stockpile Act, I agree with many of the objectives underlying this proposal.

I believe national security is the fundamental consideration of the act and the pending legislation before the committee. The original legislation on this subject, enacted in 1939 indicated that it is the policy of the Congress and the purpose and intent of this act to provide for the acquisition of stocks of certain strategic and critical materials and to encourage the further development of mines and deposits of these materials in the United States, and to decrease and prevent wherever possible a dangerous and costly dependence of the United States upon foreign nations for supplies of these materials \* \* \* in times of national emergency.

I note that the existing act, which this bill before us proposes to revise, has continued this same basic theme by providing for the acquisition and retention of stocks of these materials and to encourage the conservation and development of resources of these materials within the United States.

Current stockpile planning is based on having sufficient stocks of strategic and critical materials for the first 3 years of an emergency of indefinite duration. While this conceptual planning time frame was announced in October 1976, the Carter administration has reaffirmed that policy.

The issues related to the national materials stockpiles involve considerations of both national military security and national economic strength. These two considerations are closely interrelated. A strong U.S. security posture is dependent upon a healthy economy. If we are



to have a healthy economy and necessary supplies of strategic materials, we cannot stand idly by while a basic industry like copper is in serious trouble.

Over the past few years, the domestic copper industry has been debilitated by a combination of depressed prices, inflated production costs and foreign competition. The United States is now heavily dependent upon imports of copper, which now account for 20 percent total domestic consumption. This is in marked contrast to the historical import average of about 8 percent.

This increasing dependence on imported copper is dangerous, because the metal is used extensively in defense applications, including aircraft, ships, tanks, vehicles, missiles, communications, and all electronics.

Copper was originally included in the strategic stockpile but the decision to virtually liquidate the supply in 1974 resulted in the sale of all but about 20,000 tons. The Carter administration has established a goal of 1,299,000 short tons of copper which I support. Considering the quantity of copper in the current inventory, we are facing a deficit of nearly 1,279,000 short tons. In my view, we should act now to undertake a positive and definitive acquisition program to begin acquiring the quantity of domestic copper that would enable us to reach this stockpile goal.

I believe Senator Domenici's bill, S. 2167, which proposes to dispose of 30,000 tons of tin from the stockpile and use the proceeds of this sale to purchase 250,000 tons of copper, is a logical and necessary first step in this direction. However, S. 2702 which I am cosponsoring is directly attuned to the stockpile priorities.

At the present time, the supply of tin is over six times the stockpile objective (202,842 long tons on hand as opposed to a goal of 32,499 tons). The supply of copper, however, is nearly 1,279,000 short tons below the strategic objective, and it is clear that we should act to reconcile these differences in our national defense stockpile program.

Currently the price of tin is well above the historical average, while quotations for copper are at depressed levels. From the market perspective, this is an advantageous time to sell tin and purchase domestic copper.

I realize that the primary criterion of the stockpile program is to meet our national defense needs. Reconciling the differences between the supplies of copper and tin in the stockpile program is consistent with S. 2575 and our national defense objectives. Such action would also be beneficial to the copper industry and thousands of workers in Montana, Arizona, Nevada, Utah, New Mexico, Michigan, Tennessee, and other States.

Accordingly, I strongly urge that the subcommittee act favorably on S. 2167 as a first step in moving toward the established stockpile objective for copper.

Thank you.

Senator HART. Thank you, Senator. Another colleague Senator Cannon, the former chairman of this subcommittee, is this morning chairing his Subcommittee on Tactical Air Power and is unable to be here. He has submitted a brief statement and without objection that will be entered in the record at this point.



[The prepared statement follows:]

PREPARED STATEMENT OF SENATOR CANNON

Mr. Chairman, I regret my inability to attend today's hearings on Stockpile matters presently before the Military Construction and Stockpile Subcommittee. As you probably are aware, I am also chairing hearings on Tactical Air Power, thus precluding my participation. However, because of my past chairmanship of the former Stockpile Subcommittee and as a continuing member of this subcommittee I have an abiding interest. I am informed that the next two days of hearings will involve four major areas of consideration.

First will be S. 2575, a complete revision and update of existing law by combining the present three stockpiles. We now have the National, Supplemental, and Defense Production Act Stockpiles which are to be combined into one—the National Defense Stockpile. Further, S. 2575, will provide guidance for the President in setting stockpile goals. These are both noteworthy objectives and have my complete support.

The second area involves S. 2635, the Administration's disposal bill which disposes of 11 commodities. Third, will be S. 2181, which is a State Department request to authorize 5000 long tons of tin to the Buffer Stock under the Fifth International Tin Agreement.

Fourth, is S. 2167, the Domenici bill to authorize the sale of tin and to buy copper. Being from Nevada, I share the other Western States concern about the unemployment in the copper mining industry.

As you know, an attempt was made to amend the Wilderness Bill last October 20, 1977, to sell 30,000 tons of tin and to buy 250,000 tons of copper. The effort failed because it was considered non-germane and endangered the passage of the Wilderness Act but it failed by only 4 votes—44 to 48. Hopefully, these hearings will put this proposal in its proper perspective.

The copper market is presently very weak and prices have been very low. Under former President Nixon, all the copper from the stockpile was sold. Government purchases would therefore benefit the industry and it could be bought at bargain prices. The present proposal calls for an ultimate objective of 1.3 million tons of copper in the stockpile.

This of course is a long-range goal which will take years to acquire. Nevertheless the opportunity to make a meager start is here and support of S. 2167 is a good opportunity to make that effort meaningful.

Senator HART. We are pleased to have with us Senator Domenici, of New Mexico, who has of course taken a considerable amount of interest in this subject, particularly from the standpoint of copper elements in the stockpile. He sponsored an amendment to the legislation last year, which was not adopted, but he is back to present to this committee his own views on the matter.

Senator, we are glad to have you here with us. We would be pleased to hear your statement.

**STATEMENT OF HON. PETE V. DOMENICI, A U.S. SENATOR FROM  
THE STATE OF NEW MEXICO**

Senator DOMENICI. Thank you very much, Mr. Chairman and Senator Hatfield. Let me say that I am not going to take a lot of time because I think my views have been expressed on the floor. And I think Senator Hatfield has basically expressed them this morning again.

I am delighted to hear that our concerns are very similar and our approaches are very similar.

I would be remiss if I didn't say to you personally, Mr. Chairman, that I commend you for starting these hearings. And I know the pressures and the other things that have to take place in the Senate. And this is not an easy one. I am sure that last year when we talked on the



floor and said we were going to have hearings, that you were not as aware as you are now and as I am now of the state of the art. You have a tremendous job if you are going to bring current the strategic stockpile and that very old law, and make recommendations across the board.

I hope it can be done. I hope you consider it important, as you obviously do, and that we get on with the very serious task. However, I am here to talk just a little bit about the very serious problem that we have in copper.

My statement goes into some detail in terms of how important copper is to the United States from the standpoint of its military and from the standpoint of energy production and energy distribution.

I think you are already aware of the fact that unless something happens the domestic copper industry is going to shift dramatically and our capability will be diminished dramatically. We will become more dependent and the world will be on foreign copper.

It is obvious that this is having a specific impact right now in the States mentioned by our newest colleague. I know it has had an impact, a very serious impact in the State of Arizona. I would state to our good chairman that I am advised that even in Colorado there is a mine near Telluride which used to have 489 people, and employs only 145 now.

In my State we have been fortunate to this point but we are right on the brink. We had overtime people that were cut back to regular time. And that is how we have gotten by for the time being.

But let me just say while your genuine interest in redoing and reshaping the whole stockpiling law and its shortcomings is certainly commendable, I urge that if you cannot see your way clear this year in the next couple of months to come up with an overall new bill with new approaches to funding and sales and the like, I urge that as a minimum you adopt the philosophy of my bill.

I think anyone who would be looking at the marketplace and that had the flexibility to do something, would obviously sell tin today. And I think anyone in that position, applying ordinary rules of prudence, would use that money to buy copper. Now, you may find two or three others that are similar to that kind of approach as you go through your hearings. But the point I am trying to make is that that is so logical today, that I believe we must do it.

You will hear from people far more expert than I and I am sure they will answer your questions about real impact on the world market of the sale of tin and the quantities recommended. I am sure they will advise you of the real impact of the purchase of copper, as provided in my bill. And I am sure that the chairman, as he indicated to me on the floor in debate, has some concerns as to whether or not this would really do the job. I hope expert witnesses will convince you that it will at least have a salutary effect. It won't solve the imbalance in terms of copper, but certainly it will be a better situation after such a buy than it is today.

I would share with you, with both of you the fact that if we are going to wait around for the trade negotiators to solve this problem, I believe we will be waiting around for many months, if not years.

The State Department has talked to me at length on their approach; and it is so difficult, that I don't believe they are going to work out



anything significant in the foreseeable future with reference to the underdeveloped countries, their way of doing business versus the economic situation here. That is very fragile and I don't see any light at the end of that tunnel.

Mr. Chairman, I would be delighted to answer questions but I would ask that my statement be made a part of the record. And I thank you for permitting me to appear.

Senator HART. Thank you, Senator Domenici. Your statement, without objection, will be made a part of the record.

[The prepared statement follows:]

#### PREPARED STATEMENT OF SENATOR PETE V. DOMENICI

Mr. Chairman and members of the committee, thank you for providing me the opportunity to appear before you in support of my bill (co-sponsored by Senator Cannon and Senator Goldwater) to enable the Federal government to sell tin and utilize the proceeds to purchase copper, a commodity whose market continues to sag.

At the outset, I would like to emphasize that I do not support economic stockpiling. My testimony will be directed toward stockpiling for national security purposes. I am sure that members of this committee will be studying this issue as you continue to discuss stockpile issues in general.

As you know, Mr. Chairman, the "Strategic and Critical Materials Stockpiling Act" of 1946 provides for the acquisition and retention of strategic and critical materials needed to supply U.S. military and industrial needs during a national emergency.

With the present coal crisis and overall energy crisis, I would say we are on the brink of a national emergency. Indeed, the copper industry in the United States is facing an emergency, and the relationship between the nation's energy needs and copper usage is integral.

In 1975, approximately 65 million pounds of copper was directly associated with the generation of energy, and 10 times this amount was required for the delivery of electrical power. One third of the total U.S. copper usage is directly associated with generation, delivery and use of energy.

It is estimated that every one thousand megawatts of new generating capacity means over 60 million pounds of new copper in demand.

With these energy facts in mind, I believe it is critical that the depressed copper market be stimulated in the manner my bill suggests.

This bill would provide stability for the domestic copper industry by allowing the Federal government to purchase copper at a low price for the strategic stockpile, selling tin at high prices to accomplish this.

As I'm sure the Chairman and members of the Committee know, the copper industry is laying off workers because their profits cannot meet their costs. In your state of Colorado, Mr. Chairman, the Adarado Mining Company near Telluride in 1975 employed 489 people. It now employs only 145. This is by no means an isolated case. The same is occurring in Arizona, Utah, Montana, Nevada, Michigan, Tennessee, Texas, Washington, and in my state of New Mexico.

I'm sure we all agree that closing domestic mines or reducing the work force is counterproductive to an economy that must remain healthy in order for the people to remain healthy. In the event of a national emergency, it is imperative that we mine domestic minerals and that we have a domestic work force to accomplish this.

In closing, Mr. Chairman, I would like to commend you and this subcommittee's ranking Republican member for addressing the entire stockpile issue in the bill you have recently proposed. This is long overdue. However, it seems logical to me to begin purchases of copper while that commodity is priced low and selling tin while it is priced high, thereby easing the pressure on an industry and its employees.

I thank you, Mr. Chairman, and this Committee, for your time.

Senator HART. As the Senator knows, during our discussion on the floor last year my concern about this proposal in its amendment form at that time was twofold: One, I felt that we did need to overhaul the



entire Stock Piling Act and modernize it and not take a patchwork approach; and second, we were awaiting the administration's views on the entire range of stockpile issues. And I think those two facts account for whatever delays have occurred. And I apologize to the Senator and others similarly concerned for our delays in getting these hearings underway. But I think the Senator does understand the considerations involved there.

Now as you have acknowledged, even the proponents of your measure admit that a purchase of upward of 250,000 tons of copper would not solve the industry's problems. Even if that were to occur, if your bill were to be adopted, what other kinds of measures do you think would be necessary for the industry to undertake to get itself out of these problems?

Senator DOMENICI. Mr. Chairman, I am convinced that two or three things must occur. First, I think we have to analyze very carefully the disparity in competitive prices that exists because of the requirements, the good requirement that we imposed on our companies to clean up the air and water.

If that indeed is an 8 to 10 or 12 percent add-on that some other countries in the world don't have to bear, then I believe we should take some action. Obviously we can't tell the world what to do but certainly clean air and clean water are not only an American problem, and most certainly we ought not to be lending our financial support through either bilateral agreements or through the multipurpose banks, the multination banks for the expansion of the copper industry in the world, Mr. Chairman, without doing our utmost to see that they are also constructed clean.

I don't know enough about the economics there: If we made that happen, would that have a direct impact on their price? You and I know in America the answer is yes, but I don't know that is the case in a less developed or underdeveloped country, which might very well still undercut price because they are interested in keeping people working rather than a balance sheet in some of those countries.

But I think that must occur. And that is not within your jurisdiction but certainly both of those—the banking situation and worldwide imposition of clean-up equipment—to some extent must be the concern of Congress and the Executive. Now, whether or not we should follow directly from that logic to saying that we would impose some kind of an economic penalty on the importation related to the excessive costs of our own versus the the lesser costs of others because of the absence of pollution control and the like, I leave to others.

I would certainly be willing to listen to that and to perhaps give some direction to the trade negotiators that they consider such a price differential or add-on or carrot or whatever its technical words are.

Beyond that, beyond those thoughts I am not expert enough to give you any other suggestions, Mr. Chairman.

Senator HART. As a factual question, do you know whether, and if so to what degree, domestic copper producers are operating abroad, that have in fact gone to international production?

Senator DOMENICI. I do not but I note that you will have some witness from FPA, DOD, and others. And I think they certainly would have the answers. But I do not, Mr. Chairman.



Senator HART. Thank you. Senator Hatfield.

Senator HATFIELD. Senator, is there any reason why your bill does not require that this purchase if it is done, be of domestic copper?

Senator DOMENICI. No, there was absolutely no reason that it did not. Again it was done in an emergency situation at the outset. And it appeared to me that at that point in time we were looking at a surplus that was international, and that if it were going to have a real impact on that surplus, I just wanted to say "buy copper." But if the committee finds that buying American copper would have more chances of reaching of what your and my goals appear to be, then I certainly would support such a specific insertion in the bill.

Senator HATFIELD. Thank you, Senator.

Senator DOMENICI. Thank you very much.

Senator HART. Thank you very much, Senator. We anticipate Senator Melcher appearing in the next few minutes but I would like to go forward with our other witnesses and would ask Mr. Stephen Bosworth, Deputy Assistant Secretary of State for International Resources and Food Policy to present his statement at this time.

**STATEMENT OF HON. STEPHEN W. BOSWORTH, DEPUTY ASSISTANT SECRETARY OF STATE FOR INTERNATIONAL RESOURCES AND FOOD POLICY**

Mr. BOSWORTH. Thank you, Mr. Chairman. It is a pleasure to be here. Mr. Chairman, I have a statement which with your approval I would propose to submit for the record and simply summarize very briefly it at this time.

Senator HART. Without objection we will receive that statement and encourage you to summarize it.

[The prepared statement follows:]

**PREPARED STATEMENT OF STEPHEN W. BOSWORTH, DEPUTY ASSISTANT SECRETARY OF STATE FOR INTERNATIONAL RESOURCES AND FOOD POLICY**

Mr. Chairman, I am pleased to have this opportunity to testify before your Subcommittee regarding the Administration's program for the strategic stockpile. Since Mr. Mitchell and Mr. Church will provide an overview of Administration policy concerning the stockpile, I would like to confine my remarks to S. 2181, a bill to authorize a contribution of up to 5,000 long tons of tin metal to the buffer stock operated by the International Tin Council.

The United States is the world's leading consumer of tin, consuming annually approximately 70,000 tons of tin metal valued at current prices at approximately \$800 million. We acquire more than 80 percent of our tin requirements from abroad, with the remainder coming from domestic secondary production. In 1977, we imported 57,000 metric tons of tin metal valued at about \$580 million. The metal is an important basic input for key industrial uses, especially in the steel and solder industries.

On a worldwide basis, approximately 210,000 tons are consumed annually, most of it in Western developed countries. In addition to the U.S., Japan, the Federal Republic of Germany, France and the United Kingdom are important consumers as is the Soviet Union. World tin trade in 1977 was valued at approximately \$2.3 billion, making tin the world's seventh leading commodity export in terms of value. Tin exports are an important source of revenue to many developing countries, particularly Malaysia, Bolivia, Indonesia, and Thailand where it is a major source of domestic employment, government revenue and foreign exchange earnings.

The United States joined the Fifth International Tin Agreement (ITA) in 1976, and we have participated actively since then in the International Tin Coun-



cil, the ITA's executive body. We entered the Agreement because we judged that U.S. participation would help to further our international economic and political interests. By joining the Tin Council, the U.S. put itself in a better position to influence the Council's policies affecting the long-term supply of tin, thus protecting both American industry and consumers. Our decision clearly demonstrated our commitment to the idea of joint producer-consumer cooperation on international raw materials problems, and also reaffirmed our willingness to respond forthrightly to the legitimate needs of the developing world.

The intent of the ITA is to balance international supply and demand of tin, stabilizing the price within an agreed band at levels deemed to be both remunerative for producers and fair to consumers. To the extent that the ITA can be effective in achieving those objectives, it can both contribute to the economic health of the participating countries and also demonstrate the feasibility of international cooperation in dealing with major trade and developmental problems.

The purpose of the bill now before the Committee is to help rectify several major problems which have hampered the ITA historically. The most important of these is that the buffer stock operated by the Agreement has been too small to stabilize the world tin price effectively. In periods of slack demand and falling prices, the buffer stock could not absorb enough metal from the market to defend the floor price. Conversely, when shortages have appeared and prices have hit the price ceiling, the buffer stock has had insufficient metal to release into the market to dampen the price rise. This has led the Tin Council to rely excessively on export controls, the other major component of the ITA's stabilization machinery, to keep the price above the floor level.

Application of these controls has tended to inhibit production and discourage new investment in the tin industry. Over the short-term, export controls are inherently more cumbersome and slower to take effect in the market than are buffer stock purchases and sales. There are long lags between the imposition and subsequent relaxation of such controls and any actual impact on market supplies and prices. The result has been the development of chronic tin shortages and a tripling of the tin price over the past five years. This situation has been made worse, of course, by the exhaustion of the ITA's buffer stock in the face of such increases.

Another important factor which interferes with price stabilization and supply growth is the imposition of excessively high production taxes and restrictive licensing practices by some producing country governments.

The combination of export controls and production limitations, together with restrictive domestic tax and investment policies, has produced a persistent deficit between tin metal production and consumption. Production of tin concentrates has dropped from a peak of 196,000 metric tons in 1972 to 185,000 tons in 1977. In 1977, the gap between current world tin metal production and consumption was approximately 20,000 metric tons, a figure which is not expected to decline appreciably in 1978. This deficit will persist at least until 1980 and will generate continued pressure on tin prices, in the absence of infusions of metal into the market from the GSA stockpile and other sources. While the average New York price in 1972 was \$1.77 per pound, the latest price is around \$5.30 a pound. This is above the \$4.60 ceiling price of the ITA's price band, a situation which has prevailed for the last 14 months in spite of several upward shifts in the band during that period. The obvious failure of supply to respond to these price increases clearly shows the effects of the export control policies followed by the ITA and the major producers. In sum, the world tin market is not functioning efficiently.

The contribution to the tin buffer stock which H.R. 9486 would authorize is intended to help alleviate this situation, and to make the ITA a more effective stabilization instrument. It should also support the efforts of importing countries to persuade the major producers that a modification of their tax and investment policies is essential to our joint efforts to insure stable long-run growth in the tin market.

The ITA provides for a buffer stock with a nominal level of 40,000 metric tons. Half of this is in the form of mandatory contributions from producers, with the rest made up of voluntary contributions of metal or the cash equivalent from consuming countries. Seven other consuming countries have thus far contributed or pledged the equivalent of about 7,000 metric tons. Our contribution would, we believe, encourage other consumers to contribute. It would also demonstrate, in concrete fashion, the seriousness of our commitment to participate in workable



international commodity arrangements. Since we consider that the ITA has economic benefits for us, both with respect to short-term stabilization and long-term assurance of reasonably-priced supplies, we should share the cost of making it work. We have stated that the same principle of mutual producer/consumer responsibility applies as well to other commodity agreements which we have recently joined or may join.

An increase in the buffer stock will also strengthen our arguments within the Tin Council against the excessive and prolonged use of export controls. A larger buffer stock should permit the ITA to moderate the price volatility which has plagued the tin industry during the 1970's. Over the longer run, such enhanced price stability, along with appropriate tax and investment policies in producing countries, should help bring about the new investment necessary to assure adequate supplies of tin in the 1980's and beyond.

The provisions of H.R. 9486 would assist us to carry out our objectives with regard to the ITA. The bill would authorize the President to direct the Administrator of General Services to transfer up to 5,000 metric tons of tin metal to the International Tin Council. The contribution would be made from metal which is surplus to our needs under the Strategic and Critical Materials Stockpiling Act. At the moment, GSA holds some 168,000 tons of surplus tin out of a total stockpile of 201,000 tons, so that the bill would have no impact on our strategic needs for the metal.

Based on the number of votes we have in the Tin Council (26 percent of total consumer votes) our pro rata share of the 20,000 tons of consumer contributions provided for in the agreement is 5,220 tons. This quantity at the current ITC floor price would have a value of \$43.5 million, which is the valuation given to our contribution for purposes of liquidation and repayment to the U.S. upon termination of the Agreement. At current market prices, however, \$43.5 million would equate to approximately 3,500 tons of tin metal. It is this quantity, therefore, that the U.S. would contribute in the present circumstances. Should either the market or ITC floor price change prior to the contribution, however, the amount of the contribution would be adjusted accordingly.

In formal discussions with the International Tin Council (ITC) senior staff, we have been assured that the tin will be sold in the United States. This in fact would be commercially sensible because, while title to the tin would pass to the buffer stock manager, the tin would remain in U.S. warehouses putting U.S. bidders at an advantage over foreign buyers because of lower transportation costs.

This contribution will not disrupt the tin market. As I noted earlier, the market price is substantially above the ITA's present price band. The release of additional tin metal through our contribution will help to dampen these high market prices. Some producer countries themselves, realizing that a continuation of excessively high prices would cause a long-term shift in consumption away from tin, welcome our proposed addition to the tin buffer stock.

In conclusion, I would add that while we have used the term "contribution", we are in effect making an investment in the tin buffer stock. This investment will be returned to us at the termination of the Agreement in 1981, along with our pro rata share of any profits resulting from buffer stock operations. While a profit is not guaranteed, contributions have earned an average return of 8 percent per annum in past agreements.

Thank you, Mr. Chairman.

Mr. BOSWORTH. My name is Stephen W. Bosworth. I am Deputy Assistant Secretary of State for International Resources and Food Policy.

It is a pleasure to be before this subcommittee regarding the administration's program for the strategic stockpile. Since Mr. Mitchell and Mr. Church will provide an overview of the administration policy concerning the stockpile, I would like to confine my remarks, Mr. Chairman, to S. 2181, a bill to authorize a contribution of up to 5,000 long tons of tin metal to the buffer stock operated by the International Tin Council.

The United States joined the Fifth International Tin Agreement in 1976, and we have participated actively since then in the Tin Council. We entered the Agreement because we judged that U.S. participation



would help to further our international economic and political interests. By joining the Tin Council, the United States put itself in a better position to influence the Council's policies affecting the long-term supply of tin, thus protecting both American industry and consumers.

The intent of the ITA is to balance international supply and demand of tin, stabilizing the price within an agreed band at levels deemed to be both remunerative for producers and fair to consumers. To the extent that the ITA can be effective in achieving those objections, it can both contribute to the economic health of the participating countries and also demonstrate the feasibility of international cooperation in dealing with major trade and developmental problems.

The purpose of the bill now before the subcommittee is to help rectify several major problems which have hampered the ITA historically. The most important of these in our view is that the buffer stock operated by the agreement has been too small to stabilize the world tin price effectively. In periods of slack demand and falling prices, the buffer stock could not absorb enough metal from the market to defend the floor price.

Conversely, when shortages have appeared and prices have hit the price ceiling, the buffer stock has had insufficient metal to release into the market to dampen the price rise.

The contribution to the tin buffer stock which would be authorized by this bill is intended to help alleviate this situation, and to make the ITA a more effective stabilization instrument. It should also support the efforts of importing countries to persuade the major producers that a modification of their tax and investment policies is essential to our joint efforts to insure stable longrun growth in the tin market.

The International Tin Agreement provides for a buffer stock with a nominal level of 40,000 metric tons. Half of this is in the form of mandatory contributions from producers, with the rest made up of voluntary contributions of metal or the cash equivalent from consuming countries. Seven other consuming countries have thus far contributed or pledged the equivalent of about 7,000 metric tons. Our contribution would, we believe, encourage other consumers to contribute. It would also demonstrate, in concrete fashion, the seriousness of our commitment to participate in workable international commodity arrangements. Since we consider that the ITA has economic benefits for us, both with respect to short-term stabilization and long-term assurance of reasonably priced supplies, we believe the United States should share the cost of making it work. We have stated that the same principle of mutual producer/consumer responsibility applies as well to other commodity agreements which we have recently joined or may join.

Mr. Chairman, this contribution will not disrupt the tin market. As I noted earlier, the market price is substantially above the ITA's present price band. The release of additional tin metal through our contribution will help to dampen these high market prices. Some producer countries themselves, realizing that a continuation of excessively high prices would cause a long-term shift in consumption away from tin, have indicated that they would welcome our proposed addition to the tin buffer stock.

In conclusion, I would add that while we have used the term "contribution," we are in effect making an investment in the tin buffer



stock. This investment will be returned to us at the termination of the Agreement in 1981, along with our pro rata share of any profits resulting from buffer stock operations. Thank you, Mr. Chairman.

Senator HART. Thank you. If you would indulge us, I would like to ask you to remain for a few minutes for some questions but in the meantime hear from Senator Melcher, who has asked to appear before the subcommittee and make a statement on his own, and then we will come back to questions if that is agreeable.

Mr. BOSWORTH. Yes.

Senator HART. Senator Melcher.

### STATEMENT OF HON. JOHN MELCHER, A U.S. SENATOR FROM THE STATE OF MONTANA

Senator MELCHER. Thank you, Mr. Chairman. I appreciate the opportunity to testify in support of the legislation proposed in S. 2167 by Senator Domenici. Five months ago I asked on October 20 of last year for these hearings. At that time we asked for authorization to sell 30,000 tons of tin from the strategic stockpile and to acquire approximately 250,000 tons of copper for the stockpile: in effect, a simple swap, virtually a barter exchange. This was tabled by a 47 to 44 vote.

Since last Fall my own State has lost about 250 jobs in the cities of Anaconda and Butte with the closure of a smelter and leaching precipitation operation, plus the underground mining operation at Butte.

Whether the 250,000 tons stockpile copper acquisition would have helped to save these jobs we will never know. But what we do know is that without the assistance from the Federal Government and with the continued procrastination, we will keep alive the bleak outlook that has led to copper's cry for help since last summer.

The salient facts are:

One, that copper is selling for 60 to 61½ cents per pound;

Two, the estimated per pound cost of producing copper—and these are 1975 operating costs—is \$0.754 per pound;

Three, there is little or no copper in the stockpile now;

Four, domestic copper mines are operating at 77 percent of capacity;

Five, the mines in the rest of the non-Communist world are operating at 92 percent of capacity;

Six, imports of refined copper have climbed to 20 percent of domestic production of refined copper in 1976 and 19 percent in the first 10 months of 1977, compared to about 9 percent during the 1970-75 period.

Seven, that at year's end almost 5,000 copper workers remain out of work;

Eight, over 5,000 copper workers who have been totally or partially separated or threatened with separation from employment have already been certified as eligible for trade adjustment assistance under the 1974 Trade Act, based on findings by the Department of Labor that increased imports of refined copper have contributed importantly to the actual or threatened separation;

Nine, two companies have shut down their entire primary copper operations; five other domestic mines and a refinery closed during the



1977 year; and one mine will close in mid-1978. All operations that were closed remain closed.

I said at the outset this has hit my people in Montana. In Montana, which has been the fourth largest copper producer, the last drop of 250 jobs put copper employment under the 4,000-person level.

Of greater significance, the major underground exploration program scheduled for the Butte area will be curtailed because mine-pumping will be reduced, resulting in flooding below the 4,000-foot level.

Mr. Chairman, we ask our industry, our copper industry, no, we demand of our copper industry to comply with increasingly stringent air and water pollution control laws as well as in areas of other regulations and controls aimed at very diverse cultural or bureaucratic objectives, while at the same time making the search for new and perhaps better mineral supplies very difficult by withdrawing, Mr. Chairman, a high percentage of our public mines from exploration.

The net effect of all of this has been to add an estimated 8.3 cents to each pound of copper for environmental control costs alone, and drive the long-term debt of the seven major producers up from \$1.5 billion in 1971 to \$2.36 billion in 1976. I think it has gotten worse since 1976, too.

If our companies had to compete with private firms overseas, we wouldn't have a need to be here. Our copper industry is not characterized by an outdated and noncompetitive physical plant. But how do our private domestic producers compete with the Government-owned operations like in Chile or Zambia? What air pollution control devices are they required to have? And after all, control of air pollution is not just the responsibility of one industry or one country. It is a world responsibility.

The effect of the lack of action by the Federal Government is to sanction the export of our copper employment to foreign producers. The industry on February 23, 1978, petitioned the International Trade Commission for section 201 relief from serious injury cause and threatened increase imports of refined copper: A matter already determined to exist by the Labor Department.

I ask, Mr. Chairman, that this petition be made a part of this hearing record following my remarks.

The price of tin is still \$5.78 per pound, Mr. Chairman. The acquisition of copper and release of tin accomplishes two purposes: most importantly, domestic commercial stocks of copper will be drawn down 250,000 tons.

I know this is a one-shot deal. I know that it does not cure all the ills for the domestic copper industry here in the United States, but at least it would be a partial correction of the adverse conditions affecting the industry.

Secondarily, the international tin market can be pooled and given an element of stability. Late last year the Executive Chairman of the International Tin Council said that the tin supply situation could be traced to the lack of sufficient buffer stocks. And the only immediate solution was releases from the U.S. stockpile. This tin-for-copper swap makes sense as a first step in telling the foreign government-owned firms—that is, the foreign-owned government copper firms—that we



will not permit our industry to be destroyed because the foreign producers choose not to control their appetites for the U.S. market.

I would hope the copper firms would also investigate the possibilities of petitioning the ITC for possible relief of unfair trade practices through countervailing duties or other antidumping actions. I would also hope this Congress would move forward with legislation as proposed by Congressman Udall in H.R. 9695, the Copper Environmental Equalization Act of 1977. This would offset the cost advantages gained by the foreign copper producers who do not employ environmental measures substantially equivalent to those imposed on domestic copper producers here in the United States.

I urge the committee to act on S. 2167 immediately, just as we asked for it last October.

Senator HART. Thank you very much, Senator Melcher. You mentioned in your remarks that we don't know or probably will never know if that amendment had passed, what effect it would have had on the States involved. Can you tell us or do you have any data or information as to what effect the purchase proposed in the Domenici bill would in fact positively have on the industry; that is to say, if the 250,000 tons of copper were purchased for the stockpile, has any study been done of what economic impact that would have on the copper industry in America?

Senator MELCHER. No, Mr. Chairman, we have no study on it. And I freely admit that as a one-shot deal it will only be a band-aid approach. But I think it would be a hopeful sign for the industry at this time. I think we may be approaching the situation the steel industry found themselves in last year, when it will be necessary for the copper industry here in the United States to petition the International Trade Commission for possible relief from unfair trade practices and look for some mechanism to prevent dumping of copper from other countries in the U.S. market.

Senator HART. There is no real argument that this one step is the solution to solving the industry problem.

Senator MELCHER. Not at all, Mr. Chairman, This one step, which would be a minor step, would be very much welcomed but it will not solve the basic problem of the copper industry.

Senator HART. Thank you very much. Senator Thurmond.

Senator THURMOND. We are delighted to have you with us and very pleased to get your opinion on these matters. You come from a State of great natural resources. It is a State where my wife's father and mother grew up, Montana.

Senator MELCHER. I think in Butte.

Senator THURMOND. Butte, Mont.

Senator MELCHER. Butte is synonymous with copper.

Senator THURMOND. When I visited out there, I went into the copper mines, I went down deep into the copper mines and I learned to acquire a great respect there for the work that is being done. And I am very interested in seeing that the copper mines in this country are protected and developed. If we should have a war and should become isolated, which I hope will never come, we are going to need to be self-sufficient just as much as possible. And I feel that the State of Montana can be very helpful in helping this country to remain self-sufficient.



We are delighted to have you with us this morning.

Senator MELCHER. Thank you, Senator.

Senator HART. Senator Hatfield.

Senator HATFIELD. Would it be fair to say, Senator, that the purchase of the 250,000 tons might have a stabilizing effect to avoid further layoffs at this time in Montana?

Senator MELCHER. It certainly would, Senator. It would be a very constructive step forward and it might stabilize the copper industry for the next several months or possibly the remainder of 1978, which would forestall further reductions in domestic copper operations, not only in our State but in all the rest of the States that are involved here in the United States.

Senator HATFIELD. And I might say, Mr. Chairman, I agree with Senator Melcher's statement.

Senator HART. Senator Bartlett.

Senator BARTLETT. Thank you, Mr. Chairman. Senator Melcher, I am very pleased to hear your testimony. It is my understanding that the Strategic and Critical Materials Stock Piling Act is designed to provide during warfare or emergency an adequate supply of critical materials and minerals. And as I understand it, it is supposed to do this by minimizing the losses to the Federal Government in their buying and selling. And also it is supposed to do this without disturbing the marketplace of any or all of the minerals or materials.

Do you feel that the Domenici bill, which amends this act, is consistent with the act?

Senator MELCHER. I would think so, Senator. I might point out that from a very practical standpoint for the United States to buy copper at these low prices to put into strategic storage looks like to me a very sensible time to buy. The prices are very low on copper at present. And there should be a watchdog effect I think in Congress to make certain that as we operate these programs we legislate into existence, that commonsense guides them. And it certainly seems the epitome of commonsense to me to buy copper at a time when its at a very low price, to put it into the stockpile to be available in times of emergency.

Senator BARTLETT. Well, I think the question arises as to whether it distorts the goals of the act to use the act for the purpose of propping up domestic prices of materials that are covered by the act.



Senator MELCHER. I don't believe the swap of the excessive—I don't know whether they are excessive amounts of tin but surely a percentage of our goal for a stockpile of tin is right up to the ceiling, Senator; to now use some of that money from the sale of that or the trade of that for copper doesn't seem to me to distort the objects of the act. But it will not really prop up the price of copper; it will just be a very short-term purchase or swap at this time—in the trading and selling of tin, and buying copper—and really won't be a mechanism for propping up the price of copper. It would only be an encouraging sign to the industry that some would go into the stockpile right now. And that very little bit of encouragement might stall off future cutbacks in our domestic production.

And I think, frankly, that one of our basic goals is to maintain the viability of a strategic industry. And copper is one of those strategic industries.

Senator BARTLETT. Would you consider using the proceeds from the sale of tin for the purchase of materials or minerals that are in the greatest need of increased supply?

Senator MELCHER. Would I consider?

Senator BARTLETT. I am making the point whether the criteria would be to determine what supplies that we have now that are in the greatest need of increase? This may be copper. I don't know. But it might be something else.

Senator MELCHER. I would feel that the responsibility of the Congress is to make sure that the stockpile is adequate for strategic purposes in very essential minerals, and copper is one of them. I don't feel that the copper stockpile itself—Government owned—is at all adequate at this time for copper.

Senator BARTLETT. Thank you very much.

Senator MELCHER. Mr. Chairman, if it is acceptable, I will leave this petition on behalf of the principal domestic copper producers under section 201, the petition to the International Trade Commission that I referred to in my testimony.

Senator HART. Without objection that will be part of the record at this point.

[The document follows:]



UNITED STATES  
INTERNATIONAL TRADE COMMISSION

PETITION ON BEHALF OF THE PRINCIPAL DOMESTIC  
COPPER PRODUCERS UNDER SECTION 201 OF THE  
TRADE ACT OF 1974 AND SUBPART B OF PART 206  
OF THE RULES OF PRACTICE AND PROCEDURE OF  
THE UNITED STATES INTERNATIONAL TRADE COMMISSION FOR TEMPORARY IMPORT RELIEF FROM SERIOUS  
INJURY SUBSTANTIALLY CAUSED AND THREATENED  
BY INCREASED IMPORTS OF REFINED COPPER

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PETITIONERS

THE ANACONDA COMPANY  
ASARCO INCORPORATED  
CITIES SERVICE COMPANY  
(MINERALS GROUP)  
COPPER RANGE COMPANY  
CYPRUS MINES CORPORATION  
DUVAL CORPORATION  
HECLA MINING COMPANY  
INSPIRATION CONSOLIDATED  
COPPER COMPANY  
KENNECOTT COPPER CORPORATION  
MAGMA COPPER COMPANY  
PHELPS DODGE CORPORATION  
RANCHERS EXPLORATION AND  
DEVELOPMENT CORPORATION

February 23, 1978



PETITION FOR TEMPORARY IMPORT RELIEF  
WITH RESPECT TO IMPORTS OF REFINED COPPER

1. INTRODUCTION

This petition is filed on behalf of the principal domestic copper producers under Section 201 of the Trade Act of 1974 (the "Act") and the rules of the United States International Trade Commission. It urges the Commission to determine that increased quantities of refined copper being imported into the United States are causing and threatening serious injury to the domestic copper mining, smelting and refining industry and to recommend appropriate relief to the President of the United States.

Petitioners submit that the requirements for Section 201 relief as to refined copper exist in full. The problem is severe, and unless prompt import relief is provided, petitioners fear that even greater injury will occur.

Imports of refined copper increased dramatically in 1976 to more than two and one-half times the 1975 level and to about double the average for the 1970-75 period. These 1976 imports totaled almost 20% of domestic production of refined copper, compared to 8% in 1975 and 9% in the 1970-75 period. Imports of refined copper in 1977 exceeded the extraordinarily high 1976 level.



The increased imports have caused serious injury to the domestic industry in a variety of ways. They have forced the domestic producers to lower their prices to levels not even permitting the recovery of average production costs. Prices quoted last year by domestic producers reached levels lower than those prevailing during any of the preceding three years, even though producers' costs have risen sharply and domestic consumption of refined copper increased substantially in 1976 and again in 1977. Several major U.S. mines have had to close. Operations at others have been substantially curtailed. Domestic mines operated last year at less than 80% of capacity, and there is significant unemployment in the industry.

About 50,000 workers and a large number of supervisory personnel were engaged at the end of 1976 in the mining, smelting and refining of copper in the United States, and the jobs of these workers are tied directly to the health of the domestic copper industry. Approximately 62% of the domestic copper produced in 1977 was mined in Arizona, and the employees and communities of that state have been particularly hard hit by the increased imports of refined copper.



The import problem has been aggravated by the failure of a number of copper producing countries to bring their copper output since 1974 into line with the needs of their traditional markets in Europe and Japan. This over-production has created substantial excess worldwide copper stocks, increased imports of refined copper into the United States, and caused a substantial depression of United States prices. Further, planned expansions already announced by these foreign producers, when added to the substantial excess capacity already in place, confirm that imports of copper will remain a substantial cause of serious injury to the domestic industry unless temporary import relief is provided under Sections 201-203 of the Act.

Copper is a vital material that is essential both to the security of the United States and to its economy. The United States has the capacity to satisfy virtually its entire need for copper from domestic sources, but increasing imports are now seriously jeopardizing that self-sufficiency.



(a) Petitioners

Petitioners are:

The Anaconda Company  
 ASARCO Incorporated  
 Cities Service Company  
 (Minerals Group)  
 Copper Range Company  
 Cyprus Mines Corporation  
 Duval Corporation  
 Hecla Mining Company  
 Inspiration Consolidated Copper Company  
 Kennecott Copper Corporation  
 Magma Copper Company  
 Phelps Dodge Corporation  
 Ranchers Exploration and Development  
 Corporation

In 1976, petitioners accounted for approximately 93% of the primary copper mined and smelted in this country and about 88% of the total U.S. refined copper production. Petitioners' addresses and the locations of their domestic copper mines, smelters and refineries are set forth in Exhibit A attached hereto.\*

(b) Production and Use of Refined Copper

This petition requests relief from the serious injury that increased imports of refined copper--unwrought copper, other than alloy, classified under TSUS No. 612.06--are causing and threatening to cause the domestic copper mining, smelting and refining industry.

Most domestic copper mines produce ore containing less than 1% copper. The ore is either processed

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\* Several domestic copper mines and refineries not operated by petitioners are also referred to in Exhibit A.



into concentrates containing as much as 30% or as little as 10% copper or leached to produce copper precipitates or cement copper containing a significantly greater percentage of copper. Concentrators and leaching facilities are usually located near mines, and concentrates and precipitates are considered mine production.

Copper concentrates and precipitates, as well as some high grade ores and scrap, are smelted to produce blister copper, which is a crude material containing approximately 99% copper. Blister copper, as well as some relatively pure scrap, is then fire refined in furnaces and cast into anodes.

Anode copper is too impure for most uses and must be refined electrolytically into cathodes. A substantial share of cathode production is cast into other refinery shapes such as wirebars, ingots, billets and cakes. The remainder is sold as cathode.

Under some circumstances, copper in ore is leached into solution and then processed through a hydrometallurgical process--called electrowinning--into cathode copper.

The development of a copper mine, once the ore body has been found, and the construction of facilities to process the ore into refined copper is a very substantial undertaking. The cost to develop today the



annual capacity to produce from the mine through the refinery 100,000 tons of copper, which would represent only about 5% of current domestic primary copper capacity, is estimated at between \$650,000,000 and \$700,000,000.\*

Refined copper is the principal form in which copper is sold throughout the world. Imports of refined copper compete in the domestic market with refined copper produced from domestic ores and have a direct effect on domestic copper mining, smelting and refining operations.

Refined copper is processed into wires and cables to conduct electricity, and also into copper tubing, heat exchangers and various other mill products. The principal consumers of refined copper and of these fabricated products include the electric utility, construction, automobile, mass transit, appliance and communications industries.

Petitioners recognize that the various copper-containing products described above, while clearly distinct articles, nevertheless comprise an economically interrelated series of products from concentrates through fabricated products. Petitioners also believe there is generally excess capacity outside the United States to produce copper-containing products. Most of these

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\* Report by Commodities Research Unit Ltd. entitled "The Impact on the U.S. Copper Industry of the Proposed Standard for Occupational Exposure to Sulfur Dioxide" OSHA Docket No. H-039 (1977), at 30,86.



products can enter the United States easily, without restriction by significant duties or other import barriers. Thus, changed conditions could cause a shift from one form of imported copper to another.

This petition is limited to refined copper, an article of commerce as to which the requirements for Section 201 relief are fully met by the current increasing level of imports and the consequent serious injury caused and threatened to the domestic copper industry.

(c) Sale of Refined Copper  
in the U.S. Market

Most of the refined copper produced in the United States is sold in the domestic market on the basis of prices published from time to time by the individual producers.

A large portion of imported refined copper is brought into the United States by dealers from overseas sources at a freight, insurance and duty cost of approximately 3¢ to 5¢ a pound. Dealers sell mainly to U.S. consumers but may also sell to other dealers or deliver against futures contracts on the Commodity Exchange, Inc. (the "Comex") in New York, depending on market conditions. The spot copper quotations on the Comex are currently about 1¢ to 2¢ above the cash (spot) London Metal Exchange (the "LME") wirebar quotations. Prices charged by dealers



to consumers for wirebars are currently about 2¢ to 2 1/2¢ over the Comex quotations for the month of delivery.

A significant and growing portion of imported refined copper is reportedly now being sold on an annual contract basis, either directly or through agents, to domestic consumers at prices based on the LME quotation.\*

(d) Refined Copper Tariff

The tariff on refined copper is 0.8¢ a pound of contained copper. This is equivalent to 1.3% based on the 61 1/2¢ to 63¢ price currently published by most domestic producers for a pound of copper in cathode form. The duty was 1.5¢ a pound in early 1968 and, after a four-stage reduction, reached the 0.8¢ level in 1972. In 1949, before the first tariff reduction under the Reciprocal Trade Agreements Act, the tariff was 4¢ a pound, equivalent to more than 20% of the 19.5¢ average copper price for that year.

Refined copper is imported duty-free from eligible beneficiary developing countries under Title V of the Trade Act of 1974. However, refined copper imports from Chile, Peru, Yugoslavia and Zambia did not qualify for

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\* Copper producers in Canada have historically sold refined copper in the United States to established customers on the basis of the producers' individual published prices. As shown in Exhibit B, imports of refined copper from Canada have decreased since 1973.



this preference during 1977 because shipments from those countries exceeded the prescribed maximum level during 1976.

2. THE REQUIREMENTS OF SECTION 201 OF THE  
TRADE ACT OF 1974 HAVE BEEN FULLY SATISFIED  
IN THE CASE OF IMPORTS OF REFINED COPPER

Section 201 of the Act provides that the Commission shall make an affirmative recommendation to the President if it determines, based on its investigation, that:

(i) imports of the product involved have increased, either actually or relative to domestic production,

(ii) a domestic industry producing an article like or directly competitive with the imported article has been seriously injured or threatened with serious injury, and

(iii) the increased imports are a substantial cause of the serious injury or the threat thereof.

As discussed below, each of these requirements has been fully satisfied in the case of imports of refined copper.

(a) Imports of Refined Copper Have  
Increased, Both Actually and  
Relative to Domestic Production

Imports of refined copper have increased sharply, both in absolute terms and as a percentage of domestic production of refined copper:



|           | Imports of<br>Refined Copper<br>(000 short tons) | Percentage<br>Increase in<br>Imports from<br>Year to 1977 | Domestic<br>Production of<br>Refined Copper**<br>(000 short tons) | Imports as a<br>Percentage<br>of Domestic<br>Production |
|-----------|--------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------|
| 1970      | 132                                              | 196%                                                      | 2,277                                                             | 5.8%                                                    |
| 1971**    | 162                                              | 141                                                       | 1,992                                                             | 8.1                                                     |
| 1972      | 190                                              | 106                                                       | 2,296                                                             | 8.3                                                     |
| 1973      | 195                                              | 101                                                       | 2,333                                                             | 8.4                                                     |
| 1974**    | 304                                              | 29                                                        | 2,151                                                             | 14.1                                                    |
| 1975      | 146                                              | 168                                                       | 1,788                                                             | 8.2                                                     |
| 1976      | 381                                              | 3                                                         | 1,912                                                             | 19.9                                                    |
| 1977**    |                                                  |                                                           |                                                                   |                                                         |
| (10 mos.) | 303***                                           | --                                                        | 1,581                                                             | 19.2                                                    |
| (12 mos.) | 391                                              | --                                                        | NA                                                                | NA                                                      |

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Source: import data: U.S. Bureau of the Census as reported by American Bureau of Metal Statistics; production data: U.S. Bureau of Mines.

\* Includes production from blister, anodes and other primary materials from both domestic and foreign sources and refined from secondary materials.

\*\* Strike years for domestic industry.

\*\*\* Ten month import figures are given because comparable production data are not available for months after October 1977.

In 1976 and 1977 imports of refined copper jumped by more than two and one-half times from the 1975 level. Further, the import levels in 1976 and 1977 were more than twice the average level for the 1970-75 period. The in-



crease in imports is also striking when expressed as a percentage of domestic production. Imports of refined copper averaged about 9% of domestic production during the 1970-75 period and then more than doubled to almost 20% in 1976 and more than 19% in the first ten months of 1977.

A basic reason for the sharp increase in refined copper imports is that foreign producers have in recent years expanded or maintained production in excess of the demand in their traditional markets. From 1970 to 1976, copper mine production in the non-communist countries (other than the United States) increased 32%, while consumption of refined copper in these countries increased only 17%. By comparison, U.S. copper mine production decreased over this period 7%, while U.S. consumption decreased only 4%. See Exhibits C and D.

The greatest over-production abroad occurred during the worldwide recession of late 1974 and 1975, when foreign copper producers failed to curtail their production in line with the reduction in demand. Estimated operating rates at foreign mines in these two years were 95% and 88%, respectively, compared to 84% and 72% in the United States. See Exhibit E. As a result, worldwide stocks of refined copper more than doubled



during these two years to about twice customary levels. See Exhibit F.

Worldwide consumption of refined copper has recovered substantially since the recession--1977 is estimated to be the second best year ever--but foreign producers have continued to produce more copper than their traditional markets can consume. In 1976 and 1977 operating rates at foreign copper mines were increased to an estimated 92%. As a result, worldwide stocks of refined copper have continued to increase, notwithstanding shutdowns and continued substantial production curtailments at United States copper facilities.

Over-production abroad was a principal cause of the sharp increase in imports in 1976 and the even higher level of imports in 1977. For example, although Zambia had not exported to the United States more than 7,000 tons of refined copper in any year from 1970 through 1975, it shipped more than 127,000 tons to the United States in 1976, representing more than 6% of the total refined copper consumed domestically that year. See Exhibit B. Further, imports from Zambia in 1977, while reduced from the high 1976 level, continued at a rate more than eleven times that of any year from 1970 through 1975.



These dramatically increased imports from Zambia did not represent a unique case. Imports of refined copper from South America in 1976 were almost three times the average of such imports during the 1970-75 period, and totaled almost 5% of 1976 domestic consumption. South American imports jumped yet another 39% in 1977 from the high 1976 level. Thus, refined copper imports from Zambia and South America aggregated more than 10% of domestic consumption in both 1976 and 1977, compared to an average of less than 2% in the 1970-75 period.

Finally, there is every reason to believe that the current high import levels will be maintained and even increased in the absence of effective import relief. New copper mine development and expansions abroad, already announced, when added to the substantial excess capacity already in place, confirm that imports of copper will continue to be a substantial cause of serious injury to the domestic industry unless temporary import relief is provided under Sections 201-203 of the Act.



(b) The Domestic Copper Industry  
Is Suffering Serious Injury  
and Additional Serious  
Injury Is Threatened

(i) Domestic Copper Producers  
Are Operating on Average  
at a Substantial Loss

Although domestic copper producers use the most advanced mining technology and maintain and operate efficient facilities, the cost of mining, smelting and refining copper in the United States has increased very substantially in recent years. While costs have risen sharply, increasing imports have forced domestic producers to lower their prices substantially in an attempt to defend their markets. As a result, many domestic producers have been unable even to recover their costs.\* Moreover, the increased imports have caused an increase in domestic unit production costs by forcing reductions in domestic operating rates.

The average cost incurred by the domestic companies to produce refined copper (mining through refining) has recently been estimated at more than 75¢ a pound, or substantially more than the 61 1/2¢-63¢ prices currently

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\* Most foreign producers are not subject to environmental and other governmental regulations comparable to those in effect in the United States, and in this respect they have a substantial cost advantage over the domestic companies.



published by most domestic producers. This estimate includes 54¢ of operating costs (exclusive of pollution control costs).<sup>\*</sup> The 54¢ average operating cost is expressed in 1975 dollars and would be equivalent to about 61¢ in 1977 dollars based on the change in the Bureau of Labor Statistics consumer price index. It therefore appears that many domestic producers are not even covering their operating costs, let alone their additional capital and environmental control costs, at the current depressed 61 1/2¢-63¢ price levels.

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\* Report of National Economic Research Associates, Inc. entitled "The Impact of Environmental Control Expenditures on the U.S. Copper, Lead and Zinc Industry" (January 16, 1978), p. 21, charts 8 and B-3. The 75¢ production cost estimate comprises (1) 1975 operating costs determined on the basis of data furnished by domestic copper companies; (2) estimated costs of capital (depreciation, interest, property taxes, insurance, exploration and research and general and administrative), based on an Arthur D. Little, Inc. analysis prepared for the Environmental Protection Agency; and (3) estimated costs of environmental controls, based on actual costs incurred through 1975 plus estimated additional costs required to meet federal ambient air standards and 1977 water pollution standards:

|                                                | Estimated Per<br>Pound Cost of<br>Producing<br>Copper |
|------------------------------------------------|-------------------------------------------------------|
| 1975 operating costs .....                     | 54.0¢                                                 |
| estimated capital costs ....                   | 13.1¢                                                 |
| estimated environmental<br>control costs ..... | <u>8.3¢</u>                                           |
|                                                | 75.4¢                                                 |



As a result, the increased imports have contributed significantly to a very substantial buildup in long-term debt for the domestic copper industry. As shown in Exhibit G, the long-term debt of the seven major domestic copper producers more than doubled between 1971 and 1976--from \$1.15 billion to \$2.36 billion--and the industry's debt ratio (long-term debt as a percentage of debt plus equity) exceeded 30% in 1976. Long-term debt undoubtedly increased substantially in 1977 as a number of domestic copper companies reported additional borrowings. The loss of profitability and the related increase in long-term debt have jeopardized the domestic industry's ability to continue to finance the expenditures required for the maintenance of current operations, let alone the tremendous sums that should be spent in the coming years for the development of new capacity to enable the United States to remain virtually self-sufficient in copper.

(ii) Most Domestic Copper Operations  
Have Been Substantially Curtailed  
and a Number Have Been Shut Down

During the late summer and fall of 1977, almost all domestic copper producers were forced by the pressure of increased low-priced imports to shut down or curtail large portions of their operations.



Two companies, Hecla Mining Company and Cyprus Pima Mining Company (owned 50.01 percent by Cyprus Mines Corporation), were forced to shut down their entire primary copper operations in September, and five other domestic copper mines and a refinery were closed during the year. The operations at all these facilities remain closed. Still another mine is scheduled to cease milling operations in mid-1978.

A preliminary estimate indicates that domestic mines operated at only 77% of capacity in 1977, compared to an estimated 80% operating rate in 1976 and an estimated average operating rate of 91% over the four years 1970-73 that preceded the 1974-75 recession. These substantial production curtailments were put into effect even though demand for copper increased substantially in the United States and elsewhere throughout the world in 1976 and again in 1977, reaching an estimated level last year in the United States approximately as high as the average for the 1970-73 period. See Exhibit D. At the beginning of 1978, most domestic producers were continuing to operate on a substantially curtailed basis.

In addition to these closings and curtailments, several domestic copper producers have been forced to postpone planned expansions of their productive capacity because of the serious injury to the domestic industry caused by the increased imports.



(iii) There is Significant Unemployment  
in the Domestic Copper Industry

The closings and curtailments of domestic copper operations resulting from increased imports have caused great hardships for domestic copper workers and their families and communities. During the last six months of 1977, almost 10,000 copper company employees, representing 20% of the industry's work force, were laid off for at least six weeks or were terminated. Many others were subject to reduced workweeks. Almost 5,000 copper workers remained out of work at year-end. Due to the continuing high level of imports, many of those who continue working are subject to curtailed workweeks and are threatened with layoffs. Over 5,000 copper workers, who have been totally or partially separated or threatened with separation from employment, have already been certified as eligible for trade adjustment assistance under the Act based on findings by the Department of Labor that increased imports of refined copper have contributed importantly to their actual or threatened separations.

(iv) Domestic Copper Production  
Has Dropped Dramatically and  
Inventories Have Grown Sharply

The increasing imports of refined copper have led to a substantial decline in domestic copper mine pro-



duction, a greater drop in domestic refined copper production and, since 1973, a six-fold increase in domestic producer stocks of refined copper:

|         | Domestic<br>Mine<br>Production*<br>(000 short tons) | Domestic<br>Production<br>of Refined<br>Copper**<br>(000 short tons) | Domestic<br>Producer<br>Stocks of<br>Refined Copper<br>(000 short tons) |
|---------|-----------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1970    | 1,720                                               | 2,277                                                                | 143                                                                     |
| 1971*** | 1,522                                               | 1,992                                                                | 83                                                                      |
| 1972    | 1,665                                               | 2,296                                                                | 99                                                                      |
| 1973    | 1,718                                               | 2,333                                                                | 43                                                                      |
| 1974*** | 1,597                                               | 2,151                                                                | 152                                                                     |
| 1975    | 1,411                                               | 1,788                                                                | 261                                                                     |
| 1976    | 1,606                                               | 1,912                                                                | 273                                                                     |
| 1977*** | 1,393(11 mos.)                                      | 1,581(10 mos.)                                                       | 287(12/31/77)                                                           |

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Source: production data: U.S. Bureau of Mines; producer stock data: American Bureau of Metal Statistics.

\* Copper in ores, concentrates and precipitates.

\*\* Includes production from blister, anodes and other primary materials from both domestic and foreign sources and refined from secondary materials.

\*\*\* Strike years for domestic industry.



The financial losses being incurred by the domestic copper producers, the curtailment and shut-down of domestic copper operations and the resulting massive unemployment, the dramatic decline in production of domestic refined copper and the sharp increase in refined copper inventories constitute overwhelming evidence that the domestic copper industry is suffering serious injury and is threatened with additional serious injury.

(c) Increased Imports of Refined Copper  
Are a Substantial Cause of Serious In-  
jury and the Threat of Additional Serious  
Injury to the Domestic Copper Industry

In determining whether increased imports are a substantial cause of serious injury or the threat thereof, Section 201(b)(2) of the Act provides that the Commission shall take into account all economic factors which it considers relevant, including (but not limited to) "an increase in imports (either actual or relative to domestic production) and a decline in the proportion of the domestic market supplied by domestic producers".

These guidelines have been met fully in this case. Refined copper imports have increased dramatically, as noted above, both in actual terms and relative to domestic production. There has also been a sharp decline in the portion of the United States market supplied by



domestic copper producers. Refined copper imports averaged 9% of domestic consumption for the 1970-1975 period, totaled 9.5% of domestic consumption in 1975 and then jumped sharply to about 19% of domestic consumption in 1976 and 1977.

Increased imports, often sold at prices below those quoted by most domestic producers, have been the overwhelming cause of serious injury to the domestic copper mining, smelting and refining industry and of the threat of additional serious injury to that industry. The impact of increased imports on domestic producers' prices, and on their profitability, has been particularly injurious. The prices charged by United States dealers in this country for imported copper depressed the domestic producers' quotations from a high of 85¢ a pound in 1974 to a low of 60¢ from July to December 1977. These 60¢ quotations were below the lowest prices quoted by most domestic producers during 1975, a recession year, even though consumption of refined copper here and abroad was substantially higher in 1977 than in 1975. The continuing depressing import prices are now forcing domestic producers, in an attempt to defend against further increased imports, to quote prices well below their average production cost.



As Section 201(b)(4) of the Act provides, increased imports constitute a "substantial cause" of serious injury to a domestic industry if they are an important cause of the injury and not less than any other cause. It is clear that in this case increased imports of refined copper are the overwhelming cause of serious injury to the domestic copper industry, and certainly no less than any other cause.

Neither the recession in the domestic economy in late 1974 and 1975 nor the state of the economy since the recession accounts for the serious injury suffered by the domestic copper industry. To the contrary, the economy has been strong since the recession and by 1977 estimated domestic consumption of refined copper was approximately equal to the average annual consumption during the 1970-73 period. Notwithstanding this substantial recovery in the U.S. copper market, domestic production of refined copper apparently dropped in 1977 to a level more than 270,000 tons below the average annual production during the 1970-1973 period. The difference largely reflected the substantially increased imports: 1977 imports of refined copper were about 220,000 tons greater than the average for the 1970-73 period.



Nor has the injury to the domestic industry resulted from outdated, non-competitive physical plant. The domestic industry has invested large amounts of money to modernize existing production facilities and to replace exhausted reserves in an effort to maintain efficient operations and to compete effectively with imports.

In summary, increased imports of refined copper are a substantial cause of serious injury to the domestic copper mining, smelting and refining industry and of the threat of additional serious injury to that industry.

3. EFFECTIVE TEMPORARY IMPORT RELIEF IS NECESSARY  
TO REMEDY THE SERIOUS INJURY TO THE DOMESTIC  
COPPER INDUSTRY CAUSED BY THE INCREASED IMPORTS  
AND TO PREVENT THE ADDITIONAL SERIOUS INJURY  
THREATENED BY SUCH IMPORTS

Effective temporary import relief is necessary to remedy the serious injury to domestic producers caused by the increased imports of refined copper and to prevent the additional serious injury threatened by such imports. Petitioners believe that the objectives of the Act would best be carried out by a quota for imports of refined copper based on imports during the most recent representative period. At the hearings in this investigation, petitioners will recommend the size and type of quota



that would both (i) enable domestic producers to operate at reasonable levels of profit and at appropriate rates of capacity and to employ on a continuous basis the many thousands of workers who have been laid off or subjected to curtailed employment as a result of the increased imports, and (ii) minimize the impact of relief on domestic copper consumers and those foreign copper producers who have been traditional, reliable suppliers to U.S. fabricators.

#### 4. CONCLUSION

In summary, petitioners urge the Commission, on the basis of the information set forth above and to be collected in the course of this investigation:

(1) to determine that refined copper is being imported into the United States in such increased quantities as to be a substantial cause of serious injury, and a substantial cause of the threat of additional serious injury, to the domestic copper mining, smelting and refining industry; and

(2) to determine and recommend to the President the import relief necessary to remedy such serious injury and to prevent such additional injury, taking



into account the views expressed by petitioners  
during the course of this investigation.

Respectfully submitted,

THE ANACONDA COMPANY  
ASARCO INCORPORATED  
CITIES SERVICE COMPANY  
(MINERALS GROUP)  
COPPER RANGE COMPANY  
CYPRUS MINES CORPORATION  
DUVAL CORPORATION  
HECLA MINING COMPANY  
INSPIRATION CONSOLIDATED  
COPPER COMPANY  
KENNECOTT COPPER CORPORATION  
MAGMA COPPER COMPANY  
PHELPS DODGE CORPORATION  
RANCHERS EXPLORATION AND  
DEVELOPMENT CORPORATION

*David V. Smalley*  
\_\_\_\_\_  
David V. Smalley

Debevoise, Plimpton,  
Lyons & Gates  
David V. Smalley  
Douglas S. Eakeley  
Franci J. Blassberg  
299 Park Avenue  
New York, New York 10017  
Telephone: (212) 752-6400

Covington & Burling  
Harvey M. Applebaum  
Donald Harrison  
888 Sixteenth Street, N.W.  
Washington, D.C. 20006  
Telephone: (202) 452-6000

Pierson Semmes Crolius  
and Finley  
Theodore F. T. Crolius  
1054 31st Street, N.W.  
Washington, D.C. 20007  
Telephone: (202) 333-4000

Dated: February 23, 1978



## EXHIBIT A

DOMESTIC COPPER PRODUCERSPETITIONERS

1. The Anaconda Company  
1271 Avenue of the Americas  
New York, New York 10020

Mines and Concentrators

Weed Heights, Nevada

Sahuarita, Arizona (Anamax Mining Co. - in  
which The Anaconda Company  
and a subsidiary of AMAX Inc.  
each has a 50% interest)

Carr Fork, Utah (in development)

Butte, Montana

Victoria, Nevada (operations suspended September 1,  
1977)

Smelter

Anaconda, Montana

Refineries

Great Falls, Montana

Anaconda, Montana (hydrometallurgical facility -  
operations suspended December 9, 1977)

Solvent Extraction/Electrowinning Plant

Sahuarita, Arizona (Anamax Mining Co. - in  
which The Anaconda Company  
and a subsidiary of AMAX Inc.  
each has a 50% interest)

2. ASARCO Incorporated  
120 Broadway  
New York, New York 10005

Mines and Concentrators

Mission - Sahuarita, Arizona

Sacaton - Casa Grande, Arizona

Silver Bell - Silver Bell, Arizona

Mine and Solvent Extraction Plant

San Xavier - Sahuarita, Arizona

Smelters

El Paso, Texas

Hayden, Arizona

Tacoma, Washington



Refineries  
Amarillo, Texas  
Tacoma, Washington

3. Cities Service Company (Minerals Group)  
110 West Seventh Street  
Box 300  
Tulsa, Oklahoma 74102

Mines and Concentrators  
Pinto Valley Operations - Miami, Arizona  
Copperhill, Tennessee

Mines and Solvent Extraction Plants  
Copper Cities - Miami, Arizona  
Miami Solvent Plant - Miami, Arizona

Smelter  
Copperhill, Tennessee

4. Copper Range Company  
3900 South Wadsworth Boulevard  
Suite 660 - West Point Building  
Lakewood, Colorado 80235

Mine and Concentrator  
White Pine Copper Company - White Pine, Michigan

Smelter  
White Pine Copper Company - White Pine, Michigan

Refinery  
White Pine Copper Company - White Pine, Michigan

5. Cyprus Mines Corporation  
555 South Flower Street  
Los Angeles, California 90071

Mines and Concentrators  
Tucson, Arizona - Cyprus Pima Mining Company (owned  
50.01 percent by Cyprus - shut down)  
Bagdad, Arizona - Cyprus Bruce Copper & Zinc Company  
(owned 100 percent by Cyprus - shut down)  
Bagdad, Arizona - Cyprus Bagdad Copper Company (owned  
100 percent by Cyprus)  
Benson, Arizona - Cyprus Johnson Copper Company  
(owned 100 percent by Cyprus)



(EXHIBIT A; page 3)

Solvent Extraction/Electrowinning Plants  
 Bagdad, Arizona - Cyprus Bagdad Copper Company  
 Benson, Arizona - Cyprus Johnson Copper Company

6. Duval Corporation  
 4715 East Fort Lowell Road  
 Tucson, Arizona 85712

Mines and Concentrators  
 Mineral Park Property - Kingman, Arizona  
 Esperanza Property - Sahuarita, Arizona (shut down)  
 Sierrita Property - Sahuarita, Arizona  
 Battle Mountain Properties - Battle Mountain, Nevada  
 (copper milling operations scheduled to cease  
 July 1978)

CLEAR Plant (hydrometallurgical smelting facility)  
 Sahuarita, Arizona

7. Hecla Mining Company (all primary copper operations shut down)  
 P.O. Box 320  
 Wallace, Idaho 83873

Mine and Concentrator  
 Lakeshore Copper Property - Casa Grande, Arizona

Leaching and Cementation Plant  
 Lakeshore Copper Property - Casa Grande, Arizona

Refinery and Electrowinning Plant  
 Lakeshore Copper Property - Casa Grande, Arizona

8. Inspiration Consolidated Copper Company  
 55 Madison Avenue  
 Morristown, New Jersey 07960

Mines and Concentrators  
 Inspiration Division - Inspiration, Arizona  
 Christmas Division - Christmas, Arizona  
 (shut down)

Mines, Leaching and Cementation Plants  
 Ox-Hide Mine - Inspiration, Arizona (mining operations shut down)

Leaching Plant  
 Inspiration Division - Inspiration, Arizona



(EXHIBIT A; page 4)

Smelter

Inspiration Division - Inspiration, Arizona

Refinery

Inspiration Division - Inspiration, Arizona

Electrowinning Plant

Inspiration Division - Inspiration, Arizona

9. Kennecott Copper Corporation  
161 East 42nd Street  
New York, New York 10017

Mines and Concentrators

Utah Copper Division - Magna, Utah

Ray Mines Division - Hayden, Arizona

Chino Mines Division - Hurley, New Mexico

Nevada Mines Division - Ely, Nevada

Smelters

Utah Copper Division - Garfield, Utah

Ray Mines Division - Hayden, Arizona

Chino Mines Division - Hurley, New Mexico

Nevada Mines Division - McGill, Nevada

Refineries

Utah Copper Division - Garfield, Utah

Chino Mines Division - Hurley, New Mexico (fire refinery)

Kennecott Refining Corporation - Anne Arundel  
County, MarylandElectrowinning Plant

Ray Mines Division - Hayden, Arizona

10. Magma Copper Company  
P. O. Box M  
San Manuel, Arizona

Mines and Concentrators

San Manuel Division - San Manuel, Arizona

Superior Division - San Manuel, Arizona

Smelter

San Manuel Division - San Manuel, Arizona

Refinery

San Manuel Division - San Manuel, Arizona



(EXHIBIT A; page 5)

11. Phelps Dodge Corporation  
300 Park Avenue  
New York, New York 10022

Mines and Concentrators

Morenci Mine - Morenci, Arizona  
Metcalf Mine - Morenci, Arizona  
New Cornelia Mine - Ajo, Arizona  
Tyrone Mine - Tyrone, New Mexico

Leaching and Precipitation Plants

Morenci, Arizona  
Tyrone, New Mexico  
Bisbee, Arizona

Smelters

Morenci, Arizona  
Ajo, Arizona  
Douglas, Arizona  
Hidalgo, New Mexico

Refineries

Laurel Hill - Maspeth, New York  
El Paso, Texas

12. Ranchers Exploration and Development Corporation  
149 Main Street  
Mammoth, Arizona 85618

Mines

Bluebird Mine - Miami, Arizona (leaching operations only)  
Old Reliable Mine - Mammoth, Arizona (shut down)

Precipitation Plant

Mammoth, Arizona (shut down)

Solvent Extraction/Electrowinning Plant

Miami, Arizona (anticipated to close by mid-1978)



(EXHIBIT A; page 6)

OTHER DOMESTIC COPPER MINES AND REFINERIES

- a. AMAX Inc. - refineries and 50% interest (with The Anaconda Company) in Anamax Mining Co.
- b. Cerro-Marmon Corporation - refinery\*
- c. Chemetco, Inc. - refinery\*
- d. Reading Tube Corp. - refinery (not currently operating)
- e. Southwire Company - refinery\*
- f. U V Industries, Inc. - mine and concentrators

\* These refineries are believed to treat primarily scrap.



## EXHIBIT B

Imports of All Primary Copper by Country and Type  
(1970-77)  
(copper content in short tons)

|                                                                             | 1970    | 1971(1) | 1972    | 1973    | 1974(1) | 1975      | 1976    | 1977(1) |
|-----------------------------------------------------------------------------|---------|---------|---------|---------|---------|-----------|---------|---------|
| Copper in Ore, Concentrates and Precipitates (TSUS Nos.: 602.30 and 612.02) |         |         |         |         |         |           |         |         |
| Canada                                                                      | 3,865   | 7,339   | 12,069  | 11,583  | 20,087  | 39,038    | 47,429  | 16,490  |
| Peru                                                                        | 8,955   | 8,997   | 9,486   | 8,695   | 7,284   | 7,179     | 4,323   | 3,793   |
| Republic of South Africa                                                    |         |         |         |         |         |           |         |         |
| Philippines                                                                 | 18,700  | 13,615  | 30,122  | 17,843  | 1,770   | 3,152     | 3,949   | 4,516   |
| Botswana                                                                    |         |         |         |         | 14,244  | 12,599    | 15,045  | 18,056  |
| Other                                                                       | 1,818   | 1,407   | 3,348   | 5,709   | 625     | 5,488     | 14,224  | 11,081  |
| Total                                                                       | 33,388  | 31,358  | 55,025  | 43,830  | 12,125  | 8,176     | 4,654   | 4,516   |
|                                                                             |         |         |         |         | 56,135  | 75,632    | 89,624  | 57,977  |
| Black, Blister and Anode Copper (TSUS No.: 612.03)                          |         |         |         |         |         |           |         |         |
| Mexico                                                                      | 2,490   | 4,927   | 9,540   | 8,798   | 7,643   | 8,822     | 6,168   | 4,668   |
| Chile                                                                       | 97,952  | 40,594  | 33,208  | 28,668  | 65,093  | 25,731    | 27,285  | 30,458  |
| Peru                                                                        | 94,870  | 39,900  | 81,538  | 86,894  | 94,886  | 29,849    | 6,725   | 9,551   |
| Republic of South Africa                                                    | 28,946  | 21,247  | 23,053  | 26,277  | 37,211  | 2,470     |         |         |
| Other                                                                       | 158     |         | 10,010  | 2,513   | 3,128   | 20,415(2) | 3,650   | 21      |
| Total                                                                       | 224,416 | 156,668 | 157,369 | 153,150 | 207,761 | 87,287    | 43,828  | 44,698  |
| Refined Copper (TSUS No.: 612.06)                                           |         |         |         |         |         |           |         |         |
| Canada                                                                      | 91,784  | 122,591 | 124,412 | 126,268 | 117,972 | 70,687    | 94,026  | 101,184 |
| Chile                                                                       | 16,927  | 11,055  | 26,526  | 27,257  | 60,741  | 28,625    | 68,999  | 87,565  |
| Peru                                                                        | 6,209   | 3,510   | 2,204   | 4,384   | 6,915   | 6,591     | 29,034  | 48,980  |
| United Kingdom                                                              | 57      | 4,099   | 2,406   | 6,757   | 5,791   | 454       | 3,316   | 406     |
| Yugoslavia                                                                  |         | 3,886   | 24,379  | 331     | 14,466  | 21,494    | 44,986  | 16,794  |
| Zambia                                                                      | 1,102   | 6,868   | 5,454   | 2,325   |         | 127,161   | 74,224  |         |
| Others                                                                      | 16,064  | 10,569  | 9,892   | 24,620  | 95,237  | 18,108    | 13,128  | 61,622  |
| Total                                                                       | 132,143 | 162,078 | 189,819 | 195,121 | 303,947 | 145,964   | 380,650 | 390,775 |

Source: U.S. Bureau of the Census as reported by American Bureau of Metal Statistics.

Note: Petitioners have used various sources of statistical data in this petition and the accompanying exhibits. While petitioners believe the data presented are the best available, individual petitioners cannot vouch for their accuracy and completeness.

- (1) Domestic strike year.
- (2) Entirely attributable to imports from S.W. Africa (Namibia).



Copper Mine Production in the  
Non-Communist World (1970-76)

EXHIBIT C

(copper content in 000 short tons)

|                                      | 1970         | 1971         | 1972         | 1973         | 1974         | 1975         | 1976         |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>United States</b>                 | 1,720        | 1,522(1)     | 1,643        | 1,718        | 1,597(1)     | 1,411        | 1,606        |
| <b>Developing Countries</b>          |              |              |              |              |              |              |              |
| Chile                                | 756          | 781          | 790          | 811          | 994          | 913          | 1,108        |
| Peru                                 | 234          | 235          | 254          | 243          | 235          | 192          | 241          |
| Mexico                               | 67           | 70           | 86           | 89           | 91           | 87           | 98           |
| Zambia                               | 754          | 718          | 790          | 779          | 769          | 746          | 781          |
| Zaire                                | 427          | 449          | 482          | 539          | 545          | 545          | 490          |
| Philippines                          | 179          | 218          | 236          | 244          | 249          | 249          | 262          |
| Indonesia                            | --           | --           | 6            | 42           | 72           | 70           | 74           |
| Papua N.G.                           |              |              | 137          | 202          | 203          | 190          | 195          |
| Other - Americas                     | 26           | 29           | 22           | 15           | 18           | 12           | 17           |
| Other - Africa                       | 73           | 82           | 03           | 113          | 111          | 94           | 143          |
| Other - Asia/Oceania                 | 108          | 102          | 99           | 92           | 103          | 112          | 112          |
| <b>Total</b>                         | <b>2,624</b> | <b>2,684</b> | <b>2,905</b> | <b>3,159</b> | <b>3,390</b> | <b>3,210</b> | <b>3,521</b> |
| <b>Other Foreign Producers</b>       |              |              |              |              |              |              |              |
| Canada                               | 673          | 721          | 781          | 908          | 905          | 786          | 825          |
| South Africa Rep.                    | 164          | 174          | 178          | 194          | 197          | 197          | 217          |
| Australia                            | 174          | 195          | 199          | 243          | 277          | 241          | 236          |
| Japan                                | 109          | 110          | 102          | 100          | 90           | 93           | 90           |
| Europe (2)                           | 235          | 279          | 300          | 322          | 306          | 316          | 350          |
| <b>Total</b>                         | <b>1,355</b> | <b>1,479</b> | <b>1,560</b> | <b>1,767</b> | <b>1,775</b> | <b>1,633</b> | <b>1,718</b> |
| <b>Non-Communist<br/>World Total</b> | <b>5,699</b> | <b>5,685</b> | <b>6,108</b> | <b>6,654</b> | <b>6,762</b> | <b>6,254</b> | <b>6,845</b> |

Source: Metal Statistics; Metallgesellschaft A.G.

(1) Domestic strike year

(2) Includes Yugoslavia



## EXHIBIT D

Refined Copper Consumption  
in the Non-Communist World  
(1970-77)  
-----  
(000 short tons)

| <u>Year</u> | <u>United States</u> | <u>Rest of Non-Communist World</u> (1) | <u>Total</u> |
|-------------|----------------------|----------------------------------------|--------------|
| 1970        | 2,044                | 4,371                                  | 6,415        |
| 1971        | 2,021(2)             | 4,293                                  | 6,314        |
| 1972        | 2,238                | 4,679                                  | 6,917        |
| 1973        | 2,448                | 5,218                                  | 7,666        |
| 1974        | 2,199(2)             | 4,984                                  | 7,183        |
| 1975        | 1,540                | 4,496                                  | 6,036        |
| 1976        | 1,965                | 5,125                                  | 7,090        |
| 1977(e)     | 2,150(2)             | 5,440                                  | 7,590        |

(1) Including Yugoslavia

(2) Domestic strike year

Source: World Bureau of Metal Statistics. 1977 figures are estimates based on U.S. Bureau of Mines 10 month reported data for domestic consumption and World Bureau of Metal Statistics 9 month reported provisional data for most of the rest of the non-communist world.



## EXHIBIT E

Estimated Operating Rates of Copper Mines  
Throughout the Non-Communist World (1)

| <u>Year</u> | <u>United States</u> | <u>Rest of Non-Communist World (2)</u> |
|-------------|----------------------|----------------------------------------|
| 1970        | 98%                  | 96%                                    |
| 1971        | 84 (3)               | 95                                     |
| 1972        | 91                   | 97                                     |
| 1973        | 91                   | 96                                     |
| 1974        | 84 (3)               | 95                                     |
| 1975        | 72                   | 88                                     |
| 1976        | 80                   | 92                                     |
| 1977        | 77 (3)               | 92                                     |

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(1) Based on capacity at beginning of year plus one-third of increase during the year

(2) Includes Yugoslavia

(3) Domestic strike year



## EXHIBIT

## REPORTED STOCKS OF REFINED COPPER IN THE NON-COMMUNIST WORLD

|                                                                                         | (1969-77) (1)<br>(000 short tons) |        |        |        |        |        |        |        |               |              | Dec.<br>1977 |
|-----------------------------------------------------------------------------------------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|---------------|--------------|--------------|
|                                                                                         | 1969                              | 1970   | 1971   | 1972   | 1973   | 1974   | 1975   | 1976   | March<br>1977 | June<br>1977 |              |
| <b>Producer Stocks</b>                                                                  |                                   |        |        |        |        |        |        |        |               |              |              |
| United States                                                                           | 42.0                              | 142.6  | 82.7   | 99.5   | 43.2   | 151.6  | 260.7  | 272.8  | 259.1         | 224.0        |              |
| Japan                                                                                   | 19.7                              | 24.8   | 54.9   | 29.9   | 58.5   | 117.6  | 207.0  | 172.1  | 184.7         | 219.1        | 286.7        |
| Rest (2)                                                                                | 211.4                             | 239.0  | 162.3  | 178.7  | 251.8  | 327.4  | 372.6  | 279.4  | 305.5         | 314.7        |              |
| Total                                                                                   | 273.1                             | 406.4  | 299.9  | 308.1  | 353.5  | 596.6  | 840.3  | 774.3  | 749.3         | 757.8        |              |
| <b>Exchanges</b>                                                                        |                                   |        |        |        |        |        |        |        |               |              |              |
| Comex                                                                                   | 4.0                               | 18.0   | 20.3   | 57.8   | 5.9    | 43.3   | 100.0  | 201.0  | 213.2         | 211.0        |              |
| L.M.E.                                                                                  | 20.5                              | 79.5   | 154.7  | 201.7  | 38.4   | 146.2  | 555.3  | 665.2  | 675.8         | 660.7        |              |
| Total                                                                                   | 24.5                              | 97.5   | 175.0  | 259.5  | 44.3   | 189.5  | 655.3  | 866.2  | 889.0         | 871.7        |              |
| <b>Consumer Stocks</b>                                                                  |                                   |        |        |        |        |        |        |        |               |              |              |
| France                                                                                  | 58.2                              | 69.1   | 51.3   | 53.6   | 57.3   | 70.9   | 63.2   | 58.4   | 56.2          | 62.8         |              |
| Germany                                                                                 | 46.3                              | 60.0   | 62.1   | 66.1   | 45.6   | 61.5   | 76.2   | 79.8   | 74.3          | 72.5         |              |
| Japan                                                                                   | 26.0                              | 17.5   | 27.8   | 42.8   | 54.3   | 71.8   | 121.7  | 111.3  | 140.1         | 138.2        |              |
| United Kingdom                                                                          | 17.4                              | 27.1   | 26.5   | 32.7   | 17.0   | 28.9   | 22.5   | 25.1   | 26.2          | 30.5         |              |
| United States                                                                           | 76.9                              | 147.2  | 134.5  | 77.2   | 72.4   | 144.4  | 150.1  | 149.8  | 158.5         | 211.8        | 43.8         |
| Total                                                                                   | 224.8                             | 320.9  | 302.2  | 272.4  | 246.6  | 377.5  | 433.7  | 424.4  | 455.3         | 515.8        | 33.4         |
| <b>Government Stocks</b>                                                                |                                   |        |        |        |        |        |        |        |               |              |              |
| United States                                                                           | 253.4                             | 253.4  | 253.4  | 258.6  | 251.5  | -      | -      | 42.1   | 42.1          | 42.1         |              |
| Japan                                                                                   | 253.4                             | 253.4  | 253.4  | 258.6  | 251.5  | -      | -      | 55.6   | 55.6          | 55.6         |              |
| Total                                                                                   | 506.8                             | 506.8  | 506.8  | 517.2  | 503.0  | -      | -      | 97.7   | 97.7          | 97.7         |              |
| <b>Total Reported Stocks</b>                                                            | 775.8                             | 1078.2 | 1030.5 | 1098.6 | 895.9  | 1163.6 | 1929.3 | 2112.6 | 2191.3        |              |              |
| <b>Change in Stocks</b>                                                                 | -                                 | +302.4 | -47.7  | +68.1  | -202.7 | +267.7 | +765.7 | +183.3 | +78.7         |              |              |
| <b>REFINED CONSUMPTION</b>                                                              | 6326                              | 6415   | 6314   | 6917   | 7666   | 7183   | 6036   | 7090   |               |              | 7590(e)      |
| <b>RATIO OF STOCKS TO CONSUMPTION</b>                                                   | .12                               | .17    | .16    | .16    | .12    | .16    | .32    | .30    |               |              |              |
| <b>NUMBER OF MONTHS CONSUMPTION REPRESENTED BY STOCKS (based on annual consumption)</b> | 1.5                               | 2.0    | 2.0    | 1.9    | 1.4    | 1.9    | 3.8    | 3.6    |               |              |              |

(1) At Year End  
(2) Including Yugoslavia

Source: World Bureau of Metal Statistics, American Bureau of Metal Statistics; 1977 consumption figure is estimated based on U.S. Bureau of Mines 10 month reported data for domestic consumption and World Bureau of Metal Statistics 9 month reported provisional data for most of the rest of the non-communist world.



## EXHIBIT G

Long-Term Debt of Seven Major Copper Producers  
(1971-76)

|                                | <u>(millions)</u> |              |              |              |              |              |
|--------------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|
|                                | <u>1971</u>       | <u>1972</u>  | <u>1973</u>  | <u>1974</u>  | <u>1975</u>  | <u>1976</u>  |
| Asarco                         | 38.1              | 51.0         | 91.7         | 116.4        | 341.9        | 400.4        |
| Anaconda                       | 391.5             | 388.9        | 379.3        | 405.9        | 469.2        | 502.0        |
| Copper Range                   | 36.3              | 35.0         | 33.6         | 32.7         | 31.3         | 28.6         |
| Inspiration                    | 1.1               | 19.1         | 49.8         | 46.3         | 40.4         | 34.2         |
| Kennecott                      | 314.6             | 269.0        | 220.8        | 226.4        | 406.4        | 540.2        |
| Newmont                        | 201.6             | 224.0        | 218.1        | 209.4        | 251.4        | 293.7        |
| Phelps Dodge                   | <u>166.0</u>      | <u>181.3</u> | <u>281.9</u> | <u>327.1</u> | <u>522.5</u> | <u>561.2</u> |
| Total                          | 1,149.2           | 1,168.3      | 1,275.2      | 1,364.2      | 2,063.1      | 2,360.3      |
| % change from<br>previous year |                   | 2%           | 9%           | 7%           | 51%          | 14%          |

Debt Ratios (Debt/Debt Plus Shareholders Equity)

|                                                 | <u>1971</u> | <u>1972</u> | <u>1973</u> | <u>1974</u> | <u>1975</u> | <u>1976</u> |
|-------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Asarco                                          | 5.4%        | 7.0%        | 10.6%       | 11.9%       | 29.1%       | 31.8%       |
| Anaconda                                        | 31.9        | 28.7        | 26.7        | 24.3        | 27.9        | 29.2        |
| Copper Range                                    | 26.3        | 27.0        | 24.2        | 21.4        | 22.9        | 21.8        |
| Inspiration                                     | 1.6         | 19.7        | 37.2        | 33.7        | 26.0        | 23.2        |
| Kennecott                                       | 20.9        | 18.3        | 14.5        | 13.6        | 22.4        | 27.8        |
| Newmont                                         | 29.9        | 31.4        | 27.9        | 24.7        | 27.9        | 30.9        |
| Phelps Dodge                                    | 18.9        | 19.5        | 25.7        | 26.8        | 36.9        | 38.6        |
| Weighted average<br>of seven major<br>producers | 22.1%       | 21.5%       | 21.4%       | 20.4%       | 28.3%       | 31.1%       |
| Net change<br>(From previous year)              |             | -0.6        | -0.1        | -1.0        | +7.9        | +2.8        |

Source: CRU Report at 89,91.



Senator HART. Thank you very much for coming today.

I would like to reintroduce Mr. Bosworth, Deputy Assistant Secretary of State for International Resources, who has presented a very comprehensive statement for the record and summarized that and is available for questioning.

#### STATEMENT OF STEPHEN BOSWORTH—Resumed

Mr. BOSWORTH. Thank you.

Senator HART. Let me just ask a couple of questions to put the tin problem in perspective. Would you tell us how big the tin buffer stock is now and also how large it would need to be before it is effective in controlling prices in your opinion?

Mr. BOSWORTH. I believe, Mr. Chairman, the tin buffer stock now is around 30,000 tons roughly. I can correct that for the record.

Senator HART. If you would give us the precise figure.

[The information follows:]

The precise figure is 32,980 tons.

Mr. BOSWORTH. Our feeling is that it is significantly too small. We would hope that the 5,000 tons that the United States would contribute would in itself provide a substantial addition to the, if you will, muscle of the buffer stock involved.

We are also optimistic that our contribution will bring forth further contributions. In particular, for example, Japan has already indicated that in the light of the U.S. desire to contribute to the buffer stock, they also will contribute to it.

Senator HART. How many other tin consumers are there that should contribute and how many have been contributing? Do you know?

Mr. BOSWORTH. Well, I think there are seven that have contributed thus far. I think Japan is probably the largest noncontributing consumer who we would hope would make the decision to make the contribution, as we have. There are a number of smaller European countries who may conceivably also contribute, although given their participation in the tin agreement and their relatively small size in the world tin market, those contributions would not account for large amounts of tin.

Senator HART. Could we achieve the objective that you are proposing here merely by making a cash contribution to the buffer stocks now?

Mr. BOSWORTH. Well, if the market were in a different phase, we probably could, Mr. Chairman. The problem, of course, now is the tin buffer stock is virtually exhausted of metal. If we were to make a cash contribution, that would not put any additional metal into the world market and have a stabilizing effect on prices which we hope to obtain through the contribution of metal.

Senator HART. As I understand the situation, any contribution of tin to the buffer stock now would immediately go on the market because the market price is higher than the ceiling price. Is that so as far as you know? And if so, what good will that contribution on our part do?

Mr. BOSWORTH. That situation is correct, Mr. Chairman. The current market price is above the ceiling price of the band. Well, our calculations indicate that there is a potential deficit between world tin demand and world tin supply this year of somewhat just under 20,000 tons. We believe that our 5,000 ton contribution which would go into



the market relatively quickly, would have the affect of dampening the price rise which has occurred over the past couple of years.

Senator HART. On the 5,000 tons on page 8 of your statement, you note that \$43.5 million contribution which would be the United States share is only 3,500 tons of tin at current prices.

Could the amount in the bill be reduced to 3,500 tons and still achieve the desired results?

Mr. BOSWORTH. I don't believe so, Mr. Chairman, no. That calculation is a rather intricate one because the valuation of our contribution is calculated on the basis of the floor price in effect when the contribution is made. And our contribution will be credited in those terms.

Senator HART. Even if this bill is enacted, wouldn't you have to get an appropriation for the \$43.5 million value of the tin?

Mr. BOSWORTH. I don't believe so, Mr. Chairman. I believe if this bill was enacted, that in and of itself will authorize the Executive to proceed with the contribution.

Senator HART. Turning to the bill which I have proposed S. 2575, would you comment on the provision which is found in section 7(c) (3) that prohibits sale of excess stockpile materials to foreign interests?

Mr. BOSWORTH. In the context of the tin contribution?

Senator HART. Yes.

Mr. BOSWORTH. Or in the general context?

Senator HART. Either way.

Mr. BOSWORTH. Well, I think the U.S. contribution of 5,000 tons would be put in the market in the United States and it would in effect be available for purchase by U.S. concerns.

Senator HART. Senator Melcher indicated—shifting, just momentarily turning to the copper situation—several firms in the copper industry have petitioned the ITC for relief under section 201 of the Trade Act. In your opinion does this have the potential to help the U.S. copper industry?

Mr. BOSWORTH. Well, I hesitate to offer an opinion on that petition since it is still before the ITC. I would say in a more general context, Mr. Chairman, that it seems to us that the problem of the copper industry is basically one of demand as well as of excess supply. As you know, copper is a commodity the demand for which is very closely tied to the business cycle. The relatively low rates of economic growth in the industrialized world over the past few years, particularly in Europe, are in our view a fundamental cause for the current instability and low prices in the world copper market.

Now, that is compounded by a relatively recent situation developing which is increasingly large share of world production come from developing countries where the copper production corporations or mines are government-owned. These developing countries, for whom in many cases copper is the sole or certainly the far and away most important source of foreign exchange earnings, have shown a tendency to continue to try and maintain their exports at the same volumes, even in the face of price declines.

This has caused a situation in which world production has not responded to lower prices by cutting back, as has taken place in the United States. But I think that the one lasting long-term benefit that can be provided to the copper industry in this country is to maintain



a little more rapid rate of growth in the world economy so that the demand for copper increases.

I think in general terms our position would be that we do not believe that the problems of the U.S. copper industry and the interests of the United States in a more general sense in the world trading system can be met through the imposition of protectionist measures at the border.

Senator HART. Thank you. Senator Bartlett.

Senator BARTLETT. Mr. Bosworth, the United States joined the International Tin Council in 1976 in order to help tin producers and consumers stabilize the price of tin. Nevertheless, we have an inconsistent situation in which the price of tin continues to rise. I understand it has tripled in the last 5 years. Yet there is also a current tin shortage.

In your statement on pages 4 and 5 you suggested the shortage is the product of export controls and tax policies in the producing nations. Would you expand on that?

Mr. BOSWORTH. I would be happy to, Senator. As I indicated in my statement, we believe the basic structural problem or shortcoming with the Tin Agreement is that the buffer stock has traditionally been too small. This meant that when tin prices were falling, the buffer stock did not have enough financial resources to buy sufficient tin and take it off the market to keep prices above the floor price.

As a consequence, the other major economic tool in the agreement—namely, export controls—was resorted to.

Now, in the case of tin we have found that it requires a significant period of time to reverse the effect of export controls. In many cases export controls result in production cutbacks which are reflected in the closing of mines and the closing of mine operations.

So that even when then the price begins to come back up at a different stage in the business cycle and the price cycle, there is a significant lag of time between the price increase and the time at which the supply begins to respond to higher prices.

So our objective, which we think would be significantly furthered by this contribution to the buffer stock is to make the buffer stock large enough so that it, in and of itself, has the economic capability to keep the price within the band: so that we do not have to resort in the future to export controls. This should create a situation in which as the prices goes up, there will be more tin in the buffer stock and we will be better able to defend the ceiling price as well as the floor price.

The problem with export controls is that they are quite effective in defending a floor price but they are not at all effective in defending a ceiling price. And as tin consumers, we believe that we have a very strong interest in obtaining a symmetry of protection between the floor price and the ceiling price.

Senator BARTLETT. Mr. Bosworth, is the purpose of the International Tin Agreement to protect foreign tin producers from the adverse impact of their own unwise domestic tax, investment, and export policies?

Mr. BOSWORTH. No, sir, that is not the purpose at all. We happen to believe that the tax and investment policies pursued by some of the producers in the past couple of years are not in either their own long-



term interests nor in the long-term world interests of assuring that there are adequate supplies of tin to meet demand.

And I think even the tin producers now have come to the conclusion increasingly that the recent rise in prices is contrary to their interests because it encourages the substitution of other materials such as plastics for tin and has the effect of destroying long-term demand for tin.

Senator BARTLETT. Because the United States obtains 80 percent of its tin from foreign sources and obtains the rest by reprocessing used tin, why is the administration setting such a low goal for tin in its stockpiling planning, especially in light of our statement that the price is rising and tin is becoming more scarce?

Mr. BOSWORTH. Senator, I think that is probably a question Mr. Mitchell may be in a better position to respond to than I since the actual goals of the stockpile program are not something which are within my province and responsibility.

Senator BARTLETT. Could I leave that question with you, Mr. Chairman? I have to leave in a few minutes.

Senator HART. Thank you, Mr. Bosworth. If you want to expand on the record or offer additional information——

Mr. BOSWORTH. Yes, I would like to respond in the record to your question which involves some numbers I didn't have right at my fingertips.

Senator HART. Thank you very much.

I would like to ask Mr. Dale Church, Deputy Under Secretary for Acquisition Policy, Office of the Under Secretary of Defense for Research and Engineering to give your statement to the committee.

**STATEMENT OF DALE W. CHURCH, DEPUTY UNDER SECRETARY FOR ACQUISITION POLICY, OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING, ACCOMPANIED BY RICHARD E. DONNELLY, STAFF DIRECTOR FOR MATERIALS POLICY**

Mr. CHURCH. Thank you, Mr. Chairman. I would like to introduce Richard Donnelly, my staff specialist in materials policy, to help me answer questions.

Mr. Chairman and members of the subcommittee, I appreciate this opportunity to appear before you in connection with your deliberations on the pending legislation including S. 2575, a bill to amend and review the Strategic and Critical Materials Stock Piling Act.

The provisions of the proposed legislation relate primarily to the functions of the Federal Preparedness Agency of the General Services Administration which is the Federal agency responsible for the operation and management of the stockpile itself. We work closely with that agency, not only for stockpile planning, but also in connection with other related national preparedness functions. I would like to first make some general remarks on S. 2575, the other bills and on the national stockpile of strategic and critical materials as a whole, and the role of the Department of Defense in its management and control.

With respect to stockpiling calculations, the Department of Defense provides to the FPA estimates of wartime military hardware production requirements, estimates of shipping losses, information on



scenario characteristics and other defense-related factors. The direct defense requirements are then combined by FPA with the wartime requirements of the civil sectors of the economy. Where projected wartime supplies are determined to be inadequate, a stockpile inventory goal is established.

Two years ago, an extensive interagency study of the policies and assumptions which underlie stockpile planning was completed. This study effort, which was chaired by the Federal Preparedness Agency, included full participation by the Office of the Secretary of Defense and the Organization of the Joint Chiefs of Staff. The Department of Defense concurred in the interagency study which was the basis for issuance of new National Security Council policy guidance. This guidance generally calls for stockpiling those materials for which we are dependent upon foreign sources of supply, in quantities sufficient to meet U.S. national security requirements during a major war assuming large-scale industrial mobilization, and providing at the same time for a broad range of civilian needs to insure a viable industrial base.

Last year, the change in the administration caused a moratorium to be placed on the implementation of the study and all stockpile acquisitions and disposals. In October 1977 the moratorium was lifted and major elements of the stockpile policy developed by the interagency study were reaffirmed. One new element of the policy, however, is to insure that the highest priorities for acquisitions of stockpile materials are associated with developing a strong readiness posture for the first year of an emergency.

As the result of the interagency study, an annual materials plan was established which calls for annual reviews of changes in national security planning and product and market conditions as they affect stockpiling. The DOD and other Federal agencies participate in this annual review through membership on the Annual Materials Plan Steering Committee. We also participated in three subcommittees which deal with issues such as the impact of changing defense requirements on materials' usage, the International Economic and Political Impacts of stockpile transactions, and New Materials Requirements.

The intent of the plan is to promote improved coordination of material acquisition and disposal decisions.

We have noted the current stockpile goals reflect significant shortages and excesses when compared with actual inventories. We support prompt action to alleviate the most critical of these shortages as well as to dispose of those quantities which are clearly excess to requirements. We recognize the actions need to be tempered by market conditions, foreign policy implications and budget priorities; however, critical strategic needs should be the overriding requirements.

Now, returning to the specific reason why we are here today, your consideration of S. 2565 and the other pending stockpile legislation. I would offer comments on the eight features which we believe are of major importance in the bill.

Senator HART. S. 2575.

Mr. CHURCH. 2575. You were listening carefully.

First. Senator bill 2575—

Senator HART. It is my bill.



Mr. CHURCH [continuing]. Limits release of stockpile material for purposes of national defense and prevents use of the stockpile for economic or budgetary purposes.

Second, the bill emphasizes the use of the stockpile for civilian needs as well as military needs.

Third, the bill combines the three stockpiles that currently exist.

Fourth, the bill requires congressional authorization for acquisition, or more accurately procurement, as well as disposal of stockpile materials. The existing law requires congressional authorization only for disposals.

Fifth, the bill establishes a program for acquisition and disposal of stockpile material by means of a bartering system. Excess stockpile material and surplus Government-owned goods would be transferred as payment for expense of acquisition of strategic and critical materials needed for the stockpile.

Sixth, the bill establishes a transaction fund to which all moneys received from disposals of stockpile material are credited to an account for the acquisition of strategic and critical materials needed for the stockpile. Unexpended moneys would revert to the general Treasury after a definite period of time.

Although these six features are not directly under our authority, we support them all in principle. We would like to defer to GSA on specific amendments they may be offering on behalf of the administration.

Senator HART. Are you speaking in that regard for the administration in terms of general support?

Mr. CHURCH. I am speaking for the Defense Department with respect to those six points. I think it is more correct that the Federal Preparedness Agency, Mr. Mitchell, will speak for the whole administration.

Senator HART. Thank you.

Mr. CHURCH. There are, however, two other features in the bill of direct concern to the Department of Defense. First, the bill limits the release of stockpile material to U.S. interests. We suggest this be waived in its entirety or at least for NATO member countries. It is in the national interest to allow our allies to obtain, at fair market value, strategic and critical materials of importance to their own defense production programs.

Second, the bill would limit the authority of the President to use, sell, or otherwise dispose of nonexcess stockpile materials only in response to a national emergency. "National emergency" is defined in section 3(2) of the bill as "a period of time during which the national security of the United States is jeopardized by the threat or action of a foreign power." The effect of the bill would be to remove the existing authority of the President to release nonexcess stockpile materials at any time when in his judgment such release is required for purposes of the common defense. Thus, the President would be powerless to release stockpile materials for defense production at times when these materials are not available through normal commercial channels. An example of such a situation might be the loss of materials production facilities occurring as a result of a natural disaster. We recommend section 8(A) of the bill be broadened to grant the Presi-



dent the same authority to release stockpile material as is now provided in section 5 of the Strategic and Critical Materials Stock Piling Act.

I would like to take this opportunity to note, however, the revised language for the bill presented by the Federal Preparedness Agency has been reviewed by the Defense Department and satisfactorily deals with these concerns.

I would like to turn to S. 1198 and its companion H.R. 4895. These bills are to amend the Strategic and Critical Materials Stock Piling Act, and for other purposes.

While the bartering and special fund provisions in these two bills are of the same nature as those in S. 2575, they are not identical. Those bills establish a bartering program using any Government-owned goods in exchange for strategic and critical materials needed for the stockpile, while your bill limits the bartering to surplus Government-owned goods. "Goods" owned by the Department of Defense may range from electronic components and metalworking machines up to and including complete weapons systems. While we have no objection to the concept of bartering, we are firmly opposed to bartering of Defense Department goods which are not excess to DOD needs. Bartering of nonexcess goods from DOD stocks could result in deficiencies in the levels of equipment determined to be necessary to maintain the readiness of the U.S. Forces. Consequently, we prefer the language concerning bartering in S. 2575 over that presented in S. 1198 and H.R. 4895.

Regarding the special fund provision, all three bills establish a procurement fund where all moneys received from sales of excess stockpile material are kept in the fund to be used as payment for acquisition of new strategic and critical materials. We support the intent of S. 2575 which provides for moneys in the fund to be available for a fixed period of time after which they would revert back to the general Treasury.

We think this fixed period of time puts the maximum incentive and motivation on those people to acquire the goods in the time period.

I would now like to comment on S. 1810, a bill to amend the Strategic and Critical Materials Stock Piling Act in order to prescribe the method for determining the quantity of any material to be stockpiled under such act, and for other purposes. The purpose of that bill for bartering, congressional authorization, and special funds are identical to S. 1198 and H.R. 4895. The bill does contain another provision prescribing a method for setting stockpile inventory objectives. The proposed methodology bases objectives on 1, 2, and 3 years of net import levels of materials which are determined to be necessary to the security of the United States and essential to the economy of the United States.

We do not support this proposed method for determining stockpile inventory objective, because it does not take into account the increased demand for materials which could occur and likely would occur during a war.

When the DOD participated in the interagency stockpile policy study, the Department asked the Institute for Defense Analysis to independently evaluate the adequacy and accuracy of the modeling techniques employed by the FPA in its computation of stockpile goals. The study showed the FPA modeling techniques adequately account



for the many factors that change when an economy transition from peacetime conditions to a wartime national emergency footing. Therefore, we conclude the FPA procedures, while admittedly more complicated than those proposed in S. 1810, are more accurate and preferable to the Defense Department.

In closing, I wish to affirm our desire for prompt acquisition of materials for which priority deficiencies exist. We support the maintenance of a coordinated Federal program for materials acquisitions and disposals such as the Federal Preparedness Agency's annual materials plan.

This concludes my statement. I will be pleased to respond to your questions.

Senator HART. Thank you very much. I appreciate your comments. That is a very good statement. Let me turn your attention to page 5 of your statement where you indicate that you are opposed to provisions in S. 2575 prohibiting release of stockpiled materials of foreign interests.

I want to make sure I understand the nature of this concern. As you know, the stockpiles are sized to protect the U.S. interests. And of course we do not stockpile for our allies as such. However, the provision you refer to deals with routine peacetime disposals and is of course an effort to have, if you will, a sell-American provision comparable to the buy-American Act. The emergency release is under section 8. And the President would have blanket authority to dispose of the stockpiles as he sees fit. Do you oppose restricting the sale of excess materials during peacetime to American firms?

Mr. CHURCH. Yes, that would be the intent of my comments, which would be that we feel as though our defense interests are inextricably tied to those of our allies; and most significantly, the efforts that we are now undertaking to greatly strengthen the NATO alliance with respect to updating of weapons systems and the like. And we feel as though there may be, although we don't identify any particular instance at the present time, reason to be able to allow our allies to also share in the stockpile, because again I point out that their readiness and preparedness for an emergency is also inextricably tied to ours. And we feel as though the strict limitation that is provided by the bill is too tight. However, we would be willing to live with some restriction which allowed waiver for those allies to which we have this special tie.

Senator HART. Well, the proposed legislation does contain we believe that kind of escape clause. The section is 7(e) where it says, "The administrator may acquire any material for or dispose of any material from national defense stockpiles without regard to provisions of subsections (b), (c) and (d)." I take it that does not accommodate your concern?

Mr. CHURCH. Is that a change? I do understand that the FPA has come up with some amended language which does take care of our concerns. Now, if this is the amendment, the amended language, then—

Senator HART. No; I think this is the language from our original text, unamended. But I think I would invite you to take a look at that. It is on page 7 of the printed bill, subsection (e). And I think it may permit the kind of flexibility that I believe you are arguing for here.



Mr. CHURCH. The question is: Does that provision—and I don't even know the answer; maybe you can answer it—provide for materials which are not in excess; in other words, could we dispose of materials which are not in excess of our needs, Mr. Chairman, through that provision?

Senator HART. To a foreign interest?

Mr. CHURCH. To a foreign interest, yes. And I think that was our concern.

Senator HART. Yes, that is a separate concern and we would want to take a look at the preparedness proposal. Your objection on page 5 relating to the authority of the President to release stockpiled materials for a natural disaster is noted, though I am not at all sure that the existing statute which says materials may be released for purposes of the common defense, would authorize use of stockpiled materials for a natural disaster.

To your knowledge has this ever been done before; that is to say, release of stockpiled materials as the result of a natural disaster?

Mr. CHURCH. Not to our knowledge.

Senator HART. Would you tell the committee what formal mechanisms exist for a Department of Defense and GSA coordination of the stockpile and how many people are involved and how it works?

Mr. CHURCH. I would like to ask my expert witness on that subject to respond to that.

Mr. DONNELLY. Mr. Chairman, we do have an interagency committee that is involved with the annual materials' plan. It is a committee that is chaired by the Federal Preparedness Agency. The Department of Defense provides representation to that committee. I am a member. There are two other people who also get involved from our Department, depending on what specific areas are being discussed.

It is a formal mechanism. We would like to see the mechanism move forward at least through a trial period to see how well it works, Mr. Chairman, perhaps over the next year or two.

Senator HART. How do you determine for a specific commodity how much of that commodity will be needed for defense purposes for the stockpile?

Mr. DONNELLY. Mr. Chairman, the process for determining stockpile objectives could probably be better addressed by the Federal Preparedness Agency, and I am sure perhaps they will. However, the Department of Defense does provide information to the Federal Preparedness Agency as to what our budget would look like during a wartime scenario. That budget is then combined with other inputs from other departments to the Federal Preparedness Agency, and ultimately through an input, output model results in the establishment of stockpile goals.

Senator HART. It would be helpful for us if you would expand on that in some detail for the record, giving detailed calculations or assumptions you use—particularly for tin and copper and silver.

Mr. DONNELLY. We would be pleased to do that, sir.

[The information follows:]



## STOCKPILE LEGISLATION

In the stockpile planning process the Department of Defense does not provide data to the Federal Preparedness Agency on individual commodities such as tin, copper, or silver. The DOD furnishes FPA estimates of budget projections for 3 years of a major war. The expenditure patterns are segregated into the following budget categories:

|                                     |                                        |
|-------------------------------------|----------------------------------------|
| Military personnel                  | Ship Support Equipment                 |
| Operations & Maintenance            | Navy Electronics & Communications      |
| Research & Development              | Navy Civil Engineering                 |
| Family Housing                      | Navy Supply Support                    |
| Military Construction               | Navy Ammunition                        |
| Civil Defense                       | Marine Missiles                        |
| Aircraft Procurement                | Marine Electronics & Communications    |
| Army Missiles                       | Marine Ammunition                      |
| Army Electronics & Communications   | Marine Support Vehicles                |
| Army Ammunition                     | Marine Engineering                     |
| Army Weapon & Track Combat Vehicles | Air Force Missiles                     |
| Army Tactical Vehicles              | Air Force Electronics & Communications |
| Army Support Equipment              | Air Force Ammunition                   |
| Shipbuilding & Conversion           | Air Force Vehicles                     |
| Navy Missiles                       | Air Force Support                      |

Key assumptions which are applied to the calculation process include:

1. Existence of a declared national emergency.
2. Authorization exists for increased application of certain national defense related statutes such as the expansion of production capacity authorities of the Defense Production Act.
3. DOD has top priority for industrial capacity and required raw materials.
4. The Draft will be reinstituted if necessary to man additional weapons and equipment.

The FPA modeling techniques for stockpiling calculations distribute DOD stipulated expenditures among 109 industry sectors of an input-output table. These demands are added for each industry to give the total direct defense requirements for components, partially finished goods, raw materials and services required to produce the final product through the whole production chain. The DOD requirements are then added to essential civil wartime needs. In the case of raw materials, where wartime demand exceeds estimated wartime supply an inventory objective or "goal" is established.

Senator HART. Now, I think we will have some additional questions perhaps in an executive session in a few minutes after we hear from Mr. Mitchell. So if you would remain available we would appreciate it.

I would like to ask Mr. Joseph Mitchell, Director, Federal Preparedness Agency, General Services Administration, to come forward as well as Mr. Ronald Royal, Assistant Director for Civil Crisis Preparedness, Federal Preparedness Agency.

Would you like to introduce those people accompanying you? We would appreciate it.

**STATEMENT OF JOSEPH A. MITCHELL, DIRECTOR, FEDERAL PREPAREDNESS AGENCY, GENERAL SERVICES ADMINISTRATION, AND RONALD ROYAL, ASSISTANT DIRECTOR FOR CIVIL CRISIS PREPAREDNESS, FEDERAL PREPAREDNESS AGENCY, GSA, ACCOMPANIED BY EDWARD ZABROWSKI, CHIEF, STOCKPILE POLICY AND OBJECTIVES DIVISION; AND PAUL KRUEGER; AND SEBASTIAN J. GIONFRIDDO**

Mr. MITCHELL. Thank you, Mr. Chairman. To my left is Mr. Royal who is the Assistant Director for Civil Crisis Preparedness; and Mr.



Zabrowski under whose responsibility comes the stockpile policy, who is Chief of the Stockpile Policy and Objective Division; and Mr. Krueger on his left and Mr. Gionfriddo. Senator Hart, I want to thank you for the opportunity to appear today to testify concerning the strategic and critical materials stockpile.

The purpose of my testimony today is to discuss legislation affecting stockpile policy. Bills now pending before the Senate which would alter the statute forming the basis of the stockpile program include S. 1198, S. 1810, and S. 2575.

I would like to preface my specific comments on these bills with the following observations. First, we are in agreement with the intent of these bills to strengthen the contribution of the strategic stockpile to our national security.

Second, we are most grateful for the advice, cooperation, and help provided by Senator Hart, the Senate Armed Services Committee staff, and by Representative Charles Bennett, who for many years has demonstrated leadership on stockpile issues.

Third, the administration has no preference between amendments to the existing act or a completely new act. However, we have developed suggested changes to the language of S. 2575 which we feel are necessary. These suggested changes preserve important existing authorities, or provide the flexibility needed to insure an efficient stockpile program. We have consulted with yourself and the committee staff concerning several of these technical issues.

While I or members of the staff with me today are prepared to discuss each of these changes in detail at the conclusion of my statement, let me first highlight the main points.

First, and perhaps most importantly, S. 1198, S. 1810, and S. 2575 all propose the establishment of a stockpile fund. Basically, this fund would consist of the receipts from sales from the stockpile and could only be appropriated for stockpile-related activities such as acquisition, transportation, refining, processing, or rotation.

The administration suggests this language be revised to provide for the inclusion of receipts in the fund during the fiscal year received and for two succeeding fiscal years. Subject to this revision, the administration supports this provision. We believe this language change would be beneficial for two reasons:

One, it is a very simple and straightforward way to account for the fund; and

Two, it does address the legitimate concern of the Congress to assure moneys for stockpile acquisitions without segregating and reserving such moneys in perpetuity.

Second, all three bills contain provisions regarding the scope of the barter program. The administration supports the objective of these bills, but again suggests revised language to simplify paperwork and reporting requirements.

One other point worth touching on is the fact that S. 1810 contains provisions to reduce the variability of stockpile goals. We agree that goals not be changed unless such a change involves a variation of more than 10 percent. We have testified previously as to our opposition to S. 1810 as it presently stands and we remain so opposed for the same reasons.



As a vehicle for suggesting these and other changes to Congress, we have prepared a modified draft of S. 2575 which we earnestly request this subcommittee and the Congress to consider.

Senator HART. We have that draft and will insert that in the record at this point so it will appear for the record.

[The document follows:]

#### [ATTACHMENT 1]

#### A DRAFT BILL To amend and revise the Strategic and Critical Material Stock Piling Act

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Strategic and Critical Materials Stock Piling Act is amended to read as follows:*

"That this Act may be cited as the 'National Defense Stockpile Act'.

#### "POLICY AND PURPOSE

"Sec. 2. It is the policy of the Congress and the purpose and intent of this Act to provide for the acquisition and retention of stocks of certain strategic and critical materials in order to preclude, whenever possible, a dangerous and costly dependence by the United States upon foreign sources for supplies of such materials in times of national emergency and to provide for the timely disposal of such materials that are excess to the needs of this Act.

#### "DEFINITIONS

"Sec. 3. For the purpose of this Act—

"(a) The term 'strategic and critical materials' means those materials which are not found or produced in the United States in sufficient quantity to supply the military, industrial, and essential civilian needs of the United States during a national emergency.

"(b) The term 'national emergency' means a general declaration of emergency made by the President during which the national security of the United States is jeopardized by the threat or action of a foreign power.

#### "MATERIALS TO BE ACQUIRED: PRESIDENTIAL AUTHORITY AND GUIDELINES

"Sec. 4. (a) Materials acquired and stored under this Act shall be collectively known as the 'National Defense Stockpile'.

"(b) The President shall determine from time to time which materials are strategic and critical materials for the purposes of this Act and shall determine from time to time the quantity, quality, and form in which such materials shall be acquired and stored.

"(c) The President shall make the determinations required to be made under subsection (b) of this section on the basis of the following principles:

"(1) that the purpose of the National Defense Stockpile is to serve the interest of national security only and is not to be used for economic or budgetary purposes;

"(2) that the quantities of materials to be stockpiled should be sufficient to sustain the United States during a national emergency extending up to three years; and

"(3) that a determination of the quantity of a material to be stockpiled may be revised from time to time pursuant to subsection (b) provided that: (A) the revised determination differs from the previous determination, up or down, by 10 percent or more; or (B) the Armed Services Committee of each House of Congress is notified in writing of the reason for the proposed revision thirty days in advance of such revision.

#### "CONSTITUTING THE NATIONAL DEFENSE STOCKPILE

"Sec. 5. (a) On and after October 1, 1978, the National Defense Stockpile shall consist of—

"(1) those materials acquired under this Act and contained in the so-called national stockpile on September 30, 1978;



"(2) those materials contained in the supplemental stockpile established by section 104(b) of the Agricultural Trade Development and Assistance Act of 1954 (68 Stat. 456, as amended by 73 Stat. 607) ;

"(3) those materials which the President determines to be necessary and appropriate for the National Defense Stockpile acquired under the provisions of the Defense Production Act of 1950 and contained in the so-called Defense Production Inventory on September 30, 1978 ;

"(4) those materials, determined by the President to be strategic and critical under section 4(b), acquired on or after such date pursuant to sec. 663 of the Foreign Assistance Act of 1961, as amended (22 USC 2423) ; and

"(5) those materials acquired under this Act on and after such date.

"(b) Any materials that is (1) under the control of any department or any agency of the United States, (2) determined by such department or agency to be excess to its needs and responsibilities, and (3) required for the National Defense Stockpile, shall be transferred to the National Defense Stockpile without reimbursement to such agency. All costs required to effect such transfer may be paid or reimbursed from monies available under this Act.

#### "PROCUREMENT AND DISPOSAL AUTHORITY

"Sec. 6. Except for disposals and procurements made under the authority of sections 7(a) (3), (4) and (5) and 8(a), no procurement of any material may be made for, and no disposal of any material may be made from, the National Defense Stockpile unless such procurement or disposal, including in the case of disposal the quantity, has been specifically authorized by law.

#### "STOCKPILE MANAGEMENT

"Sec. 7(a) The Administrator of General Services (hereinafter referred to as the 'Administrator') shall have overall management responsibility for the National Defense Stockpile. In carrying out his responsibility under this Act, the Administrator shall—

"(1) acquire the necessary materials for the National Defense Stockpile ;

"(2) provide for the proper storage, security, and maintenance of materials acquired for the National Defense Stockpile ;

"(3) provide for the refining or processing of any material acquired for the National Defense Stockpile when necessary to convert such material into the form best suitable for storage and subsequent use, sale, or other disposition ;

"(4) provide for the rotation of any strategic and critical material in the National Defense Stockpile where necessary to prevent deterioration by replacement of such material with an equivalent quantity of substantially the same material ;

"(5) provide for the disposal of materials in the National Defense Stockpile that he determines to be obsolete. For the purposes of this subparagraph a determination is by reason of obsolescence if such determination is on account of (1) deterioration or (2) development or discovery of a new or better material or materials ; and

"(6) dispose in a timely manner of such quantities of strategic and critical materials in the National Defense Stockpile as are determined to be excess to the national emergency needs of the United States.

"(b) (1) Except as otherwise provided herein, all purchases and contracts for materials shall be made by public advertising, except that such purchases and contracts may be negotiated by the Administrator without advertising if—

"(A) if determined to be necessary in the public interest during the period of a national emergency declared by the President or by the Congress ;

"(B) if the public exigency will not admit of the delay incident to advertising ;

"(C) if the material is to be procured outside the limits of the United States and its possessions ;

"(D) for materials for which it is impracticable to secure competition ;

"(E) for materials as to which the Administrator determines are such that the purchase or contract should not be publicly disclosed ; and

"(F) for material as to which the Administrator determines that bid prices after advertising therefor are not reasonable (either as to all or as to some of the requirements) or have not been independently arrived at in open competition ; Provided, that no negotiated purchase or contract may be entered into under this paragraph after the rejection of all or some of the bids received unless (i) noti-



fication of the intention to negotiate and reasonable opportunity to negotiate shall have been given to each responsible bidder and (ii) the negotiated price is the lowest negotiated price offered by any responsible supplier.

"(G) provided for by section 7(e).

"(2) When purchasing material under this subsection reasonable efforts shall be made to avoid undue disruption of the commercial commodity market.

"(c) Except as otherwise provided herein, disposals of materials from the National Defense Stockpile shall be made only after publicly advertising for bids, except as provided in subparagraph (1) below or as otherwise authorized by law.

"(1) Materials may be disposed of without advertising for bids if—

"(A) the material is to be transferred to an agency of the United States;

"(B) the Administrator determines that methods of disposal other than by advertising are necessary to protect the United States against avoidable loss or to reasonably avoid undue disruption of the commercial commodity market;

"(C) sales are to be made pursuant to requests received from other agencies of the United States in furtherance of authorized program objectives of such agencies; or

"(D) authorized pursuant to section 7(e).

"(2) When disposing of materials under this subsection reasonable efforts shall be made to avoid undue disruption of the commercial market.

"(d) The Administrator shall provide for and encourage the acquisition of stockpile materials through barter when such acquisition is practical and is in the best interest of the United States in the following manner—

"(1) Excess materials in the National Defense Stockpile, the disposition of which is authorized by law, shall be available for transfer at fair market value as payment for expenses (including transportation and other accessorial expenses) of acquisition of materials, or of refining, processing or rotation of materials, pursuant to this Act.

"(2) To the extent otherwise authorized by law, property owned by the United States may be bartered for materials needed for the National Defense Stockpile.

"(e) The Administrator may acquire any material for, or dispose of any material from, the National Defense Stockpile without regard to the provisions of subsections (b), (c), and (d) of this section but only if he notifies the Committees on Armed Services of the Senate and the House of Representatives in writing of the proposed acquisition or disposal thirty days before any obligation of the Federal Government is made, and includes in the notification to such committee his reasons for not complying with any or all of the provisions of such subsections.

"Sec. 8(a) Except as otherwise provided herein, materials acquired under this Act shall be released for use, sale, or other disposition only (1) on order of the President at any time when in his judgment such release is required for purposes of the common defense, or (2) in time of war or during a national emergency with respect to common defense proclaimed by the President, on order of such agency as may be designated by the President.

"(b) Any order issued by the President under subsection (a) of this section shall be promptly reported by the President, in writing, to the Committees on Armed Services of the Senate and the House of Representatives.

#### "MATERIALS DEVELOPMENT AND RESEARCH

"Sec. 9. (a) The President is authorized and directed to make scientific, technological, and economic investigations concerning the development, mining, preparation, treatment, and utilization of ores and other mineral substances found in the United States or its Territories or insular possessions, which are essential to the common defense or the industrial needs of the United States and the quantities or grades of which are inadequate from known domestic sources, in order to determine and develop domestic sources of supply, to devise new methods for the treatment and utilization of lower grade reserves, and to develop substitutes for such essential ores and mineral products; on public lands and on privately owned lands, with the consent of the owner, to explore and demonstrate the extent and quality of deposits of such minerals to determine the extent and quality of such deposits, the most suitable methods of mining and beneficiating them, and the cost at which the minerals or metals may be produced.

"(b) The President is hereby authorized and directed to make scientific, technological, and economic investigations of the feasibility of developing domestic



sources of supplies of any agricultural material or for using agricultural commodities for the manufacture of any material determined pursuant to section 4(b) of this Act to be strategic and critical or substitutes therefor.

#### "AUTHORIZATION FOR APPROPRIATIONS FOR ROUTINE OPERATIONS

"Sec. 10. There are authorized to be appropriated such sums as the Congress may from time to time deem necessary to provide for the transportation, processing, refining, storage, security, maintenance, and rotation of materials acquired for the National Defense Stockpile. Funds appropriated for such purposes shall remain available to carry out the purposes for which appropriated for a period of two fiscal years.

"Sec. 11(a) There is established in the Treasury of the United States a separate account to be known as the National Defense Stockpile Transaction Account (hereinafter in this section referred to as the 'account'). All monies received after the effective date of this section on account of sales of materials under this Act, except monies received on account of the rotation of stocks, shall be covered into the account. Those monies shall remain in the account only until appropriated or until September 30 of the second fiscal year following the fiscal year in which they are received; following which any unappropriated receipts remaining shall be transferred to miscellaneous receipts of the Treasury. Monies received on account of rotation of stocks shall remain available for the procurement of replacement of stocks.

"(b) Monies covered into the account shall be available only in such amounts as contained in Appropriation Acts, only for the procurement, transportation, rotation, refining, or processing of materials acquired for the National Defense Stockpile, and when appropriated shall remain available until expended.

#### "ADVISORY COMMITTEES

"Sec. 12. The President and the Administrator may appoint advisory committees pursuant to the Federal Advisory Committee Act composed of members from industries concerned with specific materials if the President and the Administrator deem such action appropriate. It shall be the function of any such advisory committee to advise the President and the Administrator regarding the best procedures for the acquisition, transportation, processing, refining, storage, security, maintenance, rotation, and disposal of such materials under this Act.

#### "REPORT TO CONGRESS

"Sec. 13. (a) The President shall submit to the Congress every six months a written report detailing operations under this Act, including such 'pertinent information' on the administration of this Act as will enable the Congress to evaluate the effectiveness of the program provided for under this Act and to determine the need for additional legislation.

"(b) The President shall also include in each report submitted to the Congress under subsection (a) of this section a statement and explanation of the financial status of the account and the anticipated expenditures to be made from the account during the next fiscal year.

#### "IMPORTATION OF STRATEGIC AND CRITICAL MATERIALS

"Sec. 14. Notwithstanding any other provision of law, on and after January 1, 1972, the President may not prohibit or regulate the importation into the United States of any material determined to be strategic and critical pursuant to the provisions of this Act, if such material is the product of any foreign country or area not listed as a Communist-dominated country or area in general headnote 3(d) of the Tariff Schedules of the United States (19 U.S.C. 1202), for so long as the importation into the United States of material of that kind which is the product of such Communist-dominated countries or areas is not prohibited by any provision of law."

Sec. 2. The amendment made by the first section of this Act shall become effective on October 1, 1978.

Sec. 3. Nothing contained in the amendment made by the first section of this Act shall be construed as amending, repealing, replacing or otherwise affecting the authority contained in any Act, other than the Strategic and Critical Mate-



rials Stock Piling Act as in effect on September 30, 1978, regarding the acquisition of strategic and critical materials for the United States.

Sec. 4. Any reference contained in any statute, rule, regulation, directive, executive order, or other document, on and after the effective date of this Act, to the Strategic and Critical Materials Stock Piling Act shall be deemed to refer to the National Defense Stockpile Act.

[Attachment 2]

#### COMMENTS ON HART BILL

Section 1—No change.

Section 2—

*Old:* "Sec. 2. It is the policy of the Congress and the purpose and intent of this Act to provide for the acquisition and retention of stocks of certain strategic and critical materials in order to preclude, whenever possible, a dangerous and costly dependence by the United States upon foreign sources for supplies of such materials in times of national emergency.

*New:* "Sec. 2. It is the policy of the Congress and the purpose and intent of this Act to provide for the acquisition and retention of stocks of certain strategic and critical materials in order to preclude, whenever possible, a dangerous and costly dependence by the United States upon foreign sources for supplies of such materials in times of national emergency *and to provide for the timely disposal of such materials that are excess to the needs of this Act.*

*Reason:* The primary purpose of the Act is to establish and maintain a stockpile. Managing the stockpile inventories requires both acquisitions and disposals. The inclusion of "timely" tends to give a basic to the AMP approach.

Section 3—Definitions.

Section 3(1).

*Old:* "(1) The term "strategic and critical materials" means those materials which are not found or produced in the United States in sufficient quantity to sustain the United States during a national emergency.

*New:* "(1) The term "strategic and critical materials" means those materials which are not found or produced in the United States in sufficient quantity to *supply the military, industrial and essential civilian needs* of the United States during a national emergency.

*Reason:* This change eliminates the need for Section 4(c)3. Also, without specific "essential" stockpiling for non-essential needs could be possible. The new language also tracks with the 3-tier approach.

Section 3(2).

*Old:* "(2) The term 'national emergency' means a period of time during which the national security of the United States is jeopardized by the threat or action of a foreign power.

*New:* "(2) The term 'national emergency' means a *general declaration of emergency made by the President* during which the national security of the United States is jeopardized by the threat or action of a foreign power.

*Reason:* This change is consistent with the definitions in the National Emergencies Act.

Section 4(b).

*Old:* "(b) The President shall determine from time to time which materials are strategic and critical materials for the purpose of this Act and shall determine the quantity, quality, and form in which such materials shall be acquired and stored.

*New:* "(b) The President shall determine from time to time which materials are strategic and critical materials for the purposes of this Act and shall determine *from time to time* the quantity, quality, and form in which such materials shall be acquired and stored.

*Reason:* Provide explicitly for updating of stockpile goal, storage location, purchase and storage specification, and special instructions.

Section 4(c)2.

Insert "and" after semi-colon

*Reason:* Required by the elimination of Sections 4(c)3 and 4(c)4 (see below).

Section 4(c)3.

*Old:* "(3) that the needs of the civilian population during a national emergency, as well as the needs of the armed forces, should be considered and provided for in the National Defense Stockpile; and



*New.* Omit.

*Reason:* This has now been included in the definition section. See 3(1) above. Section 4(c)4.

*Old:* "(4) that the stockpile goals for any material—(the quantity of such material determined to be required for the National Defense Stockpile) should not be changed unless a revised determination is made that would change the existing stockpile goal by more than 20 percent.

*New:* "(3) that a determination of the quantity of a material to be stockpiled may be revised from time to time pursuant to subsection (b) provided that: (A) the revised determination differs from the previous determination, up or down, by 10 percent or more; or (B) the Armed Services Committee of each House of Congress is notified in writing of the reason for the proposed revision thirty days in advance of such revision.

*Reason:* The language has been changed to avoid defining "stockpile goal," which is not used elsewhere in the Act. In addition, an exceptions procedure is provided for consistency with the exceptions procedure in 7(e) below. Finally, the 20 percent trigger point has been lowered to 10 percent which is the level suggested in the McClure Bill (S. 1810). FPA believes a 20 percent trigger point delays unnecessarily the reaction of the stockpile inventories to changing international, technological and strategic considerations. The section has been renumbered 4(c)3.

Section 5(a)2.

*Old:* "(2) those materials contained in the supplemental stockpile established by section 104 (b) of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1704(b)) ;

*New:* "(2) those materials contained in the supplemental stockpile established by section 104 (b) of the Agricultural Trade Development and Assistance Act of 1954 (68 Stat. 456, as amended by 73 Stat. 607) ;

*Reason:* The citation in the old language is no longer valid and the proper citation is given.

Section 5(a)4.

Renumber to Section 5(a)5 and insert the following :

*New:* "(4) those strategic and critical materials, as determined by the President under section 4(b) acquired on or after such date pursuant to sec. 663 of the Foreign Assistance Act of 1961, as amended (22 U.S.C. 2423) ; and

*Reason:* Section 663 of the Foreign Assistance Act provides for the acquisition of strategic and critical materials but does not provide for their disposition. This section plugs that gap.

Section 5(b).

*Old:* "(b) Any material that is (1) owned by any department or any agency of the United States, (2) determined by such department or agency to be surplus to its needs and responsibilities, and (3) required for the National Defense Stockpile, shall be transferred to the National Defense Stockpile without reimbursement to such agency. All costs required to effect such transfer shall be paid by the administrator of the National Defense Stockpile.

*New:* "(b) Any material that is (1) owned by any department or any agency of the United States, (2) determined by such department or agency to be *excess* to its needs and responsibilities, and (3) required for the National Defense Stockpile, shall be transferred to the National Defense Stockpile without reimbursement to such agency. All costs required to effect such transfer *may be paid or reimbursed from monies available under this Act.*

*Reason:* Change from 'surplus' to 'excess' is consistent with the definitions contained in the Federal Property and Administrative Services Act of 1949 (as amended). The second change ties the source of funding to this Act rather than an individual. In addition, "administrator of the National Defense Stockpile" is not defined until later in the Act. FPA believes that rather than designating an administrator, this authority should be vested in the President and delegated via Executive Order. (see below)

Section 6.

*Old:*

#### "ACQUISITION AND DISPOSAL AUTHORITY

Sec. 6 Except for disposals and acquisitions made under the authority of sections 7(a) (3) and (4) and 8(a), no acquisition of any material may be made for, and no disposal of any material may be made from, the National Defense



Stockpile unless such acquisition or disposal, as the case may be, including the quantity of the acquisition or disposal, has been specifically authorized by law.

*New:*

"PROCUREMENT AND DISPOSAL AUTHORITY

Sec. 6 Except for disposals and *procurements* made under the authority of sections 7(a) (3), (4) and (5) and 8(a), *no procurement* of any material may be made for, and no disposal of any material made from, the National Defense Stockpile unless such *procurement* or disposal, *including in the case disposal, the quantity, has been specifically authorized by law.*

*Reason:* The word "acquisition" has been changed to "procurement", since acquisition by means other than purchasing are authorized in other sections of the Act. An additional exception for disposals has been provided for obsolete materials (7(a)5). *Authorizations for procurement appropriations should not restrict quantities but only dollar amount.* Because of changed market conditions, including the price of materials, amounts in an AMP *can* only be considered estimates. Thus, if purchase of one material need to be cut back because of tight markets, monies could then be used to purchase additional amounts of a material with a "soft" market.

*Section 7.*

*Old:*

"STOCKPILE MANAGEMENT

"Sec. 7. (a) The President shall appoint an administrator of the National Defense Stockpile (hereinafter referred to as the 'administrator'). The administrator shall have overall management responsibility for such stockpile. In carrying out his responsibility under this Act, the administrator shall—

"(1) acquire the necessary materials for the National Defense Stockpile.

"(2) provide for the proper storage, security, and maintenance of materials acquired for the National Defense Stockpile;

"(3) provide for the refining or processing of any material acquired for the National Defense Stockpile when necessary to convert such material into the form best suitable for storage and subsequent use;

"(4) provide for the rotation of any strategic and critical material in the National Defense Stockpile where necessary to prevent deterioration by replacement of such material with an equivalent quantity of substantially the same material; and

"(5) dispose of such quantities of strategic and critical materials in the National Defense Stockpile as are determined to be excess to the national emergency needs of the United States.

"(b) Except as otherwise provided herein, acquisitions of strategic and critical materials under this Act shall be made in accordance with established Federal procurement practices, except that—

"(1) competitive bidding procedures shall be used in all cases; and

"(2) reasonable efforts shall be made to avoid undue disruption of the commercial commodity market.

"(c) Except as otherwise provided herein, disposals of materials from the National Defense Stockpile shall be made in accordance with established Federal practices, except that—

"(1) competitive bidding procedures shall be used in all cases;

"(2) reasonable efforts shall be made to avoid undue disruption of the commercial commodity market; and

"(3) no disposal may be made from the National Defense Stockpile to any foreign interest.

"(d) The administrator shall establish a program which provides for the acquisition and disposal of stockpile materials through barter when such acquisition or disposal is practical and is in the best interest of the United States.

"(1) Excess stockpiled materials may be bartered for materials needed for the National Defense Stockpile.

"(2) To the extent otherwise authorized by law, surplus commodities owned by the United States may be bartered for materials needed for the National Defense Stockpile.

"(e) The administrator may acquire any material for, or dispose of any material from: the National Defense Stockpile without regard to the provisions of



subsections (b), (c) and (d) of this section but only if he notifies the Committees on Armed Services of the Senate and the House of Representatives in writing of the proposed acquisition or disposal thirty days before any obligation of the Federal Government is made, and includes in the notification to such committees his reasons for not complying with any or all of the provisions of such subsections.

New:

"STOCKPILE MANAGEMENT

"Sec. 7(a) The Administrator of General Services (hereinafter referred to as the 'Administrator') shall have overall management responsibility for the National Defense Stockpile. In carrying out his responsibility under this Act, the Administrator shall—

"(1) acquire the necessary materials for the National Defense Stockpile;

"(2) provide for the proper storage, security, and maintenance of materials acquired for the National Defense Stockpile;

"(3) provide for the refining or processing of any material acquired for the National Defense Stockpile when necessary to convert such material into the form best suitable for storage and subsequent use, *sale, or other disposition*;

"(4) provide for the rotation of any strategic and critical material in the National Defense Stockpile where necessary to prevent deterioration by replacement of such material with an equivalent quantity of substantially the same material;

"(5) provide for the disposal of materials in the National Defense Stockpile that he determines to be obsolete. For the purposes of this subparagraph a determination is by reason of obsolescence if such determination is on account of (1) deterioration or (2) development or discovery of a new or better material or materials; and

"(6) dispose in a timely manner of such quantities of strategic and critical materials in the National Defense Stockpile as are determined to be excess to the national emergency needs of the United States.

"(b) (1) Except as otherwise provided herein, all purchases and contracts for materials shall be made by public advertising, except that such purchases and contracts may be negotiated by the Administrator without advertising if—

"(A) if determined to be necessary in the public interest during the period of a national emergency declared by the President or by the Congress;

"(B) if the public exigency will not admit of the delay incident to advertising;

"(C) if the material is to be procured outside the limits of the United States and its possessions;

"(D) for materials for which it is impracticable to secure competition;

"(E) for materials as to which the Administrator determines are such that the purchase or contract should not be publicly disclosed; and

"(F) for materials as to which the Administrator determines that bid prices after advertising therefor are not reasonable (either as to all or as to some of the requirements) or have not been independently arrived at in open competition; *Provided*, That no negotiated purchase or contract may be entered into under this paragraph after the rejection of all or some of the bids received unless (i) notification of the intention to negotiate and reasonable opportunity to negotiate shall have been given to each responsible bidder and (ii) the negotiated price is the lowest negotiated price offered by any responsible supplier.

"(G) provided for by section 7(e).

"(2) When purchasing material under this subsection reasonable efforts shall be made to avoid undue disruption of the commercial commodity market.

"(c) Except as otherwise provided herein, disposals of materials from the National Defense Stockpile shall be made only after publicly advertising for bids, except as provided in subparagraph (1) below or as otherwise authorized by law.

"(1) *Materials may be disposed of without advertising for bids if—*

"(A) the material is to be transferred to an agency of the United States;

"(B) the Administrator determines that methods of disposal other than by advertising are necessary to protect the United States against available loss or to reasonably avoid undue disruption of the commercial commodity market;

"(C) sales are to be made pursuant to requests received from other agencies of the United States in furtherance of authorized program objectives of such agencies; or

"(D) authorized pursuant to section 7(e).

"(2) When disposing of materials under this subsection reasonable efforts shall be made to avoid undue disruption of the commercial market.



"(d) The Administrator shall provide for and encourage the acquisition of stockpile materials through barter when such acquisition is practical and is in the best interest of the United States in the following manner—

"(1) *Excess materials in the National Defense Stockpile, the disposition of which is authorized by law, shall be available for transfer at fair market value as payment for expenses (including transportation and other accessorial expenses) acquisition of materials, or of refining, processing or rotation of materials, pursuant to this Act.*

"(2) To the extent otherwise authorized by law, excess property owned by the United States may be bartered for materials needed for the National Defense Stockpile.

"(e) The Administrator may acquire any material for, or dispose of any material from, the National Defense Stockpile without regard to the provisions of subsections (b), (c) and (d) of this section but only if he notifies the Committees on Armed Services of the Senate and the House of Representatives in writing of the proposed acquisition or disposal thirty days before any obligation of the Federal Government is made, and includes in the notification to such committees his reasons for not complying with any or all of the provisions of such subsections.

*Reason:* Section 7 has been substantially revised. A Section 7(a)5, providing for the disposal of obsolete materials has been added. This section was inadvertently left out in the original bill. The language used comes from the S&CM Act.

Section 7(b)1 has been substantially rewritten. As originally written, the bill specified that Federal procurement practices be used and that competitive bidding procedures be used in all cases. Competitive bidding procedures are not always possible. The Federal Property Act specifies when departures from competitive bidding are allowed. These exceptions have been included in the new Section 7(b) (1).

Section 7(b)2 remains unchanged.

Section 7(c)1 has been rewritten to conform with the Federal Property Act.

Section 7(c)2 remains unchanged.

Section 7(c)3 has been omitted. For many stockpile commodities there is no substantial domestic market for excess stockpile materials. In the past, disposal plans have placed restrictions on the use of materials acquired from the stockpile. In general, we feel this is best handled on a material-by-material basis at the time of the disposal.

Section 7(d) Has been rewritten to conform to standard legislative style. Section 7(d)1 now includes the standard language used in GSA Appropriation Bills and is identical to that used in the McClure Bill (S. 1810) and the Bennett Bill (H.R. 4895, S. 1198). As originally written, the Bill would have allowed bartering of excess materials which had not been authorized for disposal by Congress. The word "commodities" has been changed to "property" to conform with the authorities contained in the Federal Property Act.

Section 7(e) remains unchanged.

Finally references to an Administrator of the National Defense Stockpile have been changed to specify the Administrator of General Services. The original S&CM Act specifies this and it also reflects the practice over the entire history of the stockpile.

Section 8.

*Old:* "Sec. 8(a) The President may order the use, sale, or other disposition of any material contained in the National Defense Stockpile when in his judgment such use, sale, or other disposition is required for the purposes of the common defense in response to a national emergency.

*New:* "8(a) Except as otherwise provided herein, materials acquired under this Act shall be released for use, sale, or other disposition only (1) on order of the President at any time when in his judgment such release is required for purposes of the common defense, or (2) in time of war or during a national emergency with respect to common defense proclaimed by the President, on order of such agency as may be designated by the President.

*Reason:* The new language is from the original Stockpile Act of 1946. The language originally proposed would only permit releases during a period of time when the National security of the United States was jeopardized by the threat or action of a foreign power. (For definition, of national emergency in Section 3.) While most releases from the stockpile have occurred during World War II, the Korean War, or the Vietnam War, two releases have been made in inter-war years. The first was a 1956 and 1959 release to the Atomic Energy Commission, of mercury necessary to their weapons program. At that time the



quantity of mercury needed was unavailable through commercial sources. The second was a 1973 release of quinine to pharmaceutical manufacturers. At that time, the military supplies of anti-malarial drugs had been depleted by the just ended involvement in Vietnam. Once again the quantity of quinine needed was not available through commercial sources.

We believe that it is likely the national security of the United States may be jeopardized in the future without the direct "threat or action of a foreign power." This could occur if a natural disaster cut off significant supplies of a strategic material necessary for critical military programs. The substitute language would provide for this.

A new Section 9 has been inserted and all subsequent sections have been re-numbered.

*Section 9.*

*Old:* None.

#### "MATERIALS DEVELOPMENT AND RESEARCH

"Sec. 9. (a) The President is authorized and directed to make scientific, technological, and economic investigations concerning the development, mining, preparation, treatment, and utilization of ores and other mineral substances found in the United States or its Territories or insular possessions, which are essential to the common defense or the industrial needs of the United States and the quantities or grades of which are inadequate from known domestic sources, in order to determine and develop domestic sources of supply, to devise new methods for the treatment and utilization of lower grade reserves, and to develop substitutes for such essential ores and mineral products; on public lands and on privately owned lands, with the consent of the owner, to explore and demonstrate the extent and quality of deposits of such minerals to determine the extent and quality of such deposits, the most suitable methods of mining and beneficiating them and the cost at which the minerals or metals may be produced.

*Reason:* The S&CM Stock Piling Act contains a provision (section 7 of the Act) which provides for Research and Development in the area of S&CM. This was left out in the original bill and has been added here.

*Section 9.*

*Old:* "Sec. 9. There are authorized to be appropriated to the administrator such sums as the Congress may from time to time deem necessary to provide for the transportation, processing, refining, storage, security, maintenance, and rotation of materials acquired for the National Defense Stockpile. Funds appropriated to the administrator for such purposes shall remain available to carry out the purposes for which appropriated for a period of two fiscal years.

*New:* "Sec. 10. There are authorized to be appropriated such sums as the Congress may from time to time deem necessary to provide for the transportation, processing, refining, storage, security, maintenance, and rotation of materials acquired for the National Defense Stockpile. Funds appropriated for such purposes shall remain available to carry out the purposes for which appropriated for a period of two fiscal years.

*Reason:* The suggested language excludes the reference "to the administrator". If left as in the original language funds necessary for stockpile policy and disposal staffs would go to the administrator. These functions should be separate from storage and inventory maintenance funds.

*Section 10.*

*Old:*

#### "ESTABLISHMENT OF THE STOCKPILE TRANSACTION FUND

"Sec. 10. (a) There is established in the Treasury of the United States a separate fund to be known as the National Defense Stockpile Transaction Fund (hereinafter referred to as the 'fund'). All monies received from the disposal of materials from the National Defense Stockpile and all moneys appropriated for the acquisition of materials for the National Defense Stockpile shall be credited to the fund.

"(b) Monies credited to the fund shall be available, as provided in appropriation Acts, only for the acquisition of strategic and critical materials for the National Defense Stockpile.

"(c) After September 30, 1981, any amount of money in the fund at the beginning of any fiscal year which is in excess of the highest amount expended from the fund for the acquisition of material from the National Defense Stockpile in any of the three preceding fiscal years shall be transferred to the general fund of the Treasury.



*New:* "Sec. 11. (a) There is established in the Treasury of the United States a separate account to be known as the National Defense Stockpile Transaction Account (hereinafter in this section referred to as the 'account'). All monies received after the effective date of this section on account of sales of materials under this Act, except monies received on account of rotation of stocks, shall be covered into the account. These monies shall remain appropriated or until September 30 of the second fiscal year following the fiscal year in which they are received; following which any unappropriated receipts remaining shall be transferred to miscellaneous receipts of the Treasury. Monies received on account of rotation of stocks shall remain available for the procurement of replacement of stocks.

"(b) Monies covered into the account shall be available only in such amounts as contained in the Appropriation Acts, only for the acquisition, transportation, refining, processing or rotation of materials acquired for the National Defense Stockpile, and when appropriated shall remain available until expended."

*Reason:* Section 10 has been substantially rewritten to simplify the language, to make technical corrections, and to include some unintended omissions. The word "fund" has been replaced by the word "account" at the advice of OMB. For technical reasons this change has advantages from a fiscal point of view. The monies in the account remain "earmarked" for stockpile activities.

The provision for returning monies to the Treasury has been simplified and reworded so that it does not violate the Congressional Budget Act. As originally worded appropriated but unexpended monies could be returned to the Treasury without going through a rescission process. Special provisions have been made for monies received on account and rotation of materials. This change is consistent with the intent of Section 7(a)4.

Monies in the account could be used for the acquisition of materials. The new language includes authority to spend the money in the account for expenses accessorial to material purchases such as transportation. The original language placed normal appropriations and monies received from disposals in the fund. The suggested language omits reference to normal appropriations.

#### Section 11.

*Old:* 11. The President may appoint advisory committees composed of members from industries concerned with specific materials if the President deems such action appropriate. It shall be the function of any such advisory committee to advise the President and the administrator regarding the best procedures for the acquisition, transportation, processing, refining, storage, security, maintenance, rotation, and disposal of such materials under this Act.

*New:* "Sec. 12. The President and the Administrator may appoint advisory committees pursuant to the Federal Advisory Committee Act composed of members from industries concerned with specific materials if the President and the Administrator deem such action appropriate. It shall be the function of any such advisory committee to advise the President and the Administrator regarding the best procedures for the acquisition, transportation, processing, refining, storage, security, maintenance, rotation, and disposal of such materials under this Act.

*Reason:* The Federal Advisory Committee Act specifies the Government regulations regarding such committees. We believe the Administrator should have the authority to appoint advisory committees to advise him on carrying out the provisions of Section 7 of this Act.

#### Section 12.

##### Section 12b.

*Old:* "(b) The President shall also include in each report submitted to the Congress under subsection (a) of this section a statement and explanation of the financial status of the fund and the anticipated expenditures to be made from the fund during the next fiscal year".

*New:* "(b) The President shall also include in each report submitted to the Congress under subsection (a) of this section a statement and explanation of the financial status of the account and the anticipated expenditures to be made from the account during the next fiscal year".

*Reason:* "Fund" is changed to "account" to be consistent with Section 11 (revised).

#### Section 13.—No Change.

#### Section 14.

##### *Old:* None.

*New:* "Sec. 14. Notwithstanding any other provision of law, on and after January 1, 1972, the President may not prohibit or regulate the importation into the United States of any material determined to be strategic and critical pursuant to the provisions of this Act, if such material is the product of any foreign country or area not listed as a Communist-dominated country or area in general head-



note 3(d) of the Tariff Schedules of the United States (19 U.S.C. 1202), for so long as the importation into the United States of material of that kind which is the product of such Communist-dominated countries or areas is not prohibited by any provision of law."

*Reason:* This section in the S&CM Stock Piling Act was inadvertently left out in the original bill and is included here.

Mr. MITCHELL. The administration is requesting disposal authority for 11 materials. In the fiscal year 1978-79 period, receipts from this authority are expected to amount to \$268.2 million. An additional request for 1 year's disposal authority for each of the materials is included in our proposal. We believe this 1-year buffer will provide our sales managers with the opportunities to take advantage of favorable market swings and thereby get the taxpayers a higher return on their past outlays.

On the purchases side, we plan to acquire 20 materials at an approximate cost—including transportation—of \$244.6 million during fiscal year 1978 and fiscal year 1979. These acquisitions would go toward filling the President's highest priorities. The proposals for disposals and acquisitions flow from an interagency review process, documented in the annual materials plan, which takes into account strategic needs, market and environmental impacts, technological advances and industrial usage, substitution and conservation, international implications, and budgetary impact. We urge the subcommittee to support our disposal proposals since these proposed actions are part of the first step in the long-term, multiyear restructuring of the strategic stockpile for the national defense.

This completes my prepared statement. I will be happy to answer any questions that you or other members of the subcommittee may have.

Senator HART. Mr. Royal, do you have any remarks you wish to make?

Mr. ROYAL. No; I have no formal remarks to make, Senator Hart.

Senator HART. Thank you. So we are clear on your position and the position of the administration on all the pending stockpile bills. Mr. Mitchell, are you speaking on behalf of the administration for all the pending stockpile bills?

Mr. MITCHELL. Yes; I am.

Senator HART. And could you give us in summary form your position on H.R. 4895, which is of course the same as S. 1198?

Mr. MITCHELL. I would like, if I might, Senator, to have Mr. Royal comment.

Mr. ROYAL. Senator, in the proposed revision that we have suggested to your bill we address that problem in section 10(a).

Mr. Mitchell in his testimony stated that the administration was now in agreement with both you and Mr. Bennett in the objective of the fund which appears in section 10(a) in a slightly different version. We are suggesting the simple, straightforward method of covering the receipts into the fund during the year of receipt, Senator, and for 2 succeeding years. We support the concept of having those receipts go into the fund to be used for stockpile purposes, mainly acquisition, transportation, rotation, et cetera; with that modification to the language in both S. 1198 and S. 2575.

Senator HART. Would you also give us your position on S. 1810, Senator McClure's bill, which Mr. Mitchell referred to?

Mr. ROYAL. Of course. As Mr. Mitchell also stated in his testimony, basically we do oppose it—did you say 1810, Mr. McClure's, Senator McClure's bill?



Senator HART. Yes.

Mr. ROYAL. Yes, sir. That bill, which is based entirely upon peacetime import dependencies, as I stated to you sometime back in August of last year, I believe, we oppose that bill because we don't think that peacetime import dependencies are directly translatable both to wartime imports or into wartime requirements. And thus, we oppose the concept of structuring the stockpile on the basis of peacetime imports. We did say that we approve the idea embodied in that bill of trying to hold down what may appear to be capricious changes in stockpile goals. And to that extent we accept one of the points of that bill which says that goals should not be changed unless there is a variation of more than 10 percent.

Senator HART. And third, what is your position on the Domenici bill which is S. 2167?

Mr. ROYAL. We think that the bill, as it presently stands, is not cognizant enough of national security considerations; and therefore, oppose that bill as it presently stands.

Senator HART. Well, in other parts of your testimony, as I understand it, you intend to dispose of 23 materials during the remainder of fiscal 1978 and 1979; and that you are estimating receipts of \$425.7 million; and that 11 of these materials require legislation, which is contained in S. 2635. Is that a correct summary of your requests?

Mr. MITCHELL. That is correct.

Senator HART. And would you provide us for our record a list of those 23 materials together with the quantities and estimated value of each and show the fiscal year that disposal is planned, and any program flexibility that may exist.

Mr. MITCHELL. We would be happy to.

[The information follows:]

PROPOSED DISPOSALS FOR FISCAL YEAR 1979

[Values in millions of dollars]

| Commodity                                | Unit          | Under existing legislation |       | New legislation needed |        |
|------------------------------------------|---------------|----------------------------|-------|------------------------|--------|
|                                          |               | Quantity                   | Value | Quantity               | Value  |
| Aluminum oxide, crude                    | Short ton     | 0                          | 0     | 20,000                 | \$3.6  |
| Antimony                                 | do            | 0                          | 0     | 1,000                  | 3.7    |
| Asbestos, amosite                        | do            | 500                        | .2    | 0                      | 0      |
| Asbestos, chrysotile                     | do            | 0                          | 0     | 2,000                  | 1.0    |
| Bismuth                                  | Pound         | 0                          | 0     | 200,000                | 1.0    |
| Castor oil-sebacid acid                  | do            | 0                          | 0     | 500,000                | .6     |
| Diamond dies, small                      | Piece         | 0                          | 0     | 5,000                  | .2     |
| Diamond, industrial crush, bort          | Carat         | 2,500,000                  | 5.9   | 0                      | 0      |
| Diamond, industrial stones               | do            | 0                          | 0     | 1,500,000              | 12.6   |
| Iodine                                   | Pound         | 0                          | 0     | 300,000                | .7     |
| Magnesium                                | do            | 1,000,000                  | 1.0   | 0                      | 0      |
| Manganese, natural battery               | Short dry ton | 4,000                      | .2    | 0                      | 0      |
| Mica, Muscovite film                     | Pound         | 0                          | 0     | 20,000                 | .2     |
| Mica, Muscovite splittings               | do            | 2,500,000                  | 1.3   | 0                      | 0      |
| Mica, phlogopite splittings              | do            | 300,000                    | .3    | 0                      | 0      |
| Quartz crystals                          | do            | 250,000                    | 1.5   | 0                      | 0      |
| Silver, fine                             | Troy ounce    | 0                          | 0     | 25,000,000             | 81.1   |
| Talc, steatite block and lump            | Short ton     | 25                         | .01   | 0                      | 0      |
| Thorium nitrate                          | Pound         | 10,000                     | .02   | 0                      | 0      |
| Tin                                      | Long ton      | 0                          | 0     | 10,000                 | 115.8  |
| Tungsten ores and concentrates           | Pound         | 3,000,000                  | 27.5  | 0                      | 0      |
| Vegetable tannin, chestnut               | Long ton      | 1,600                      | .7    | 0                      | 0      |
| Vegetable tannin, quebracho              | do            | 5,600                      | 2.6   | 0                      | 0      |
| Total <sup>1</sup>                       |               |                            | 41.33 |                        | 220.58 |
| Total fiscal year 1979 disposals         |               |                            |       |                        | 261.81 |
| Total fiscal year 1978 and 1979 disposal |               |                            |       |                        | 425.75 |

<sup>1</sup> Totals may not balance due to rounding of value figures.

Note: Magnesium was removed from the list of strategic and critical materials in 1970.



## MATERIALS IN FISCAL YEARS 1978 AND 1979 DISPOSAL PLAN, BY SOURCE OF AUTHORITY

[Quantities]

| Materials requiring<br>new authority and<br>unit    | Total new<br>authority<br>requested | Sales expectations, fiscal years 1978-79, from— |               |            |                    |           | Program<br>flexibility |
|-----------------------------------------------------|-------------------------------------|-------------------------------------------------|---------------|------------|--------------------|-----------|------------------------|
|                                                     |                                     | Total<br>expected<br>sales                      | New authority |            | Existing authority |           |                        |
|                                                     |                                     |                                                 | 1978          | 1979       | 1978               | 1979      |                        |
| Aluminum oxide, crude<br>(short tons)-----          | 35,000                              | 20,000                                          | 0             | 20,000     | 0                  | 0         | 15,000                 |
| Antimony (short tons)-----                          | 2,500                               | 1,500                                           | 500           | 1,000      | 0                  | 0         | 1,000                  |
| Asbestos, amosite (short<br>tons)-----              | 0                                   | 750                                             | 0             | 0          | 250                | 500       | 0                      |
| Asbestos, chrysotile (short<br>tons)-----           | 4,000                               | 2,000                                           | 0             | 2,000      | 0                  | 0         | 2,000                  |
| Bismuth (pounds)-----                               | 500,000                             | 300,000                                         | 100,000       | 200,000    | 0                  | 0         | 200,000                |
| Castor oil-sebacic acid<br>(pounds)-----            | 1,250,000                           | 750,000                                         | 250,000       | 500,000    | 0                  | 0         | 500,000                |
| Diamond dies, small (pieces)-----                   | 10,000                              | 5,000                                           | 0             | 5,000      | 0                  | 0         | 5,000                  |
| Diamond, industrial crush,<br>bort (carats)-----    | 0                                   | 5,000,000                                       | 0             | 0          | 2,500,000          | 2,500,000 | 0                      |
| Diamond, industrial stones<br>(carats)-----         | 4,500,000                           | 3,000,000                                       | 1,500,000     | 1,500,000  | 0                  | 0         | 1,500,000              |
| Iodine (pounds)-----                                | 750,000                             | 450,000                                         | 150,000       | 300,000    | 0                  | 0         | 300,000                |
| Magnesium (pounds)-----                             | 0                                   | 2,000,000                                       | 0             | 0          | 1,000,000          | 1,000,000 | 0                      |
| Manganese, natural battery<br>(short dry tons)----- | 0                                   | 8,000                                           | 0             | 0          | 4,000              | 4,000     | 0                      |
| Mica, Muscovite film<br>(pounds)-----               | 45,000                              | 25,000                                          | 5,000         | 20,000     | 0                  | 0         | 20,000                 |
| Mica, Muscovite splittings<br>(pounds)-----         | 0                                   | 3,700,000                                       | 0             | 0          | 1,200,000          | 2,500,000 | 0                      |
| Mica, phlogophite splittings<br>(pounds)-----       | 0                                   | 600,000                                         | 0             | 0          | 300,000            | 300,000   | 0                      |
| Quartz crystals (pounds)-----                       | 0                                   | 500,000                                         | 0             | 0          | 250,000            | 250,000   | 0                      |
| Silver, fine (troy ounces)-----                     | 62,500,000                          | 37,500,000                                      | 12,500,000    | 25,000,000 | 0                  | 0         | 25,000,000             |
| Talc, steatite block and<br>lump (short tons)-----  | 0                                   | 50                                              | 0             | 0          | 25                 | 25        | 0                      |
| Thorium nitrate (pounds)-----                       | 0                                   | 20,000                                          | 0             | 0          | 10,000             | 10,000    | 0                      |
| Tin (long tons)-----                                | 25,000                              | 15,795                                          | 5,000         | 10,000     | 795                | 0         | 9,205                  |
| Tungsten ores and concen-<br>trates (pounds)-----   | 0                                   | 6,000,000                                       | 0             | 0          | 3,000,000          | 3,000,000 | 0                      |
| Vegetable tannin, chestnut<br>(long tons)-----      | 0                                   | 3,200                                           | 0             | 0          | 1,600              | 1,600     | 0                      |
| Vegetable tannin, quebracho<br>(long tons)-----     | 0                                   | 11,200                                          | 0             | 0          | 5,600              | 5,600     | 0                      |

## Memorandum:

|                                                            | Fiscal year<br>1978 (millions) | Fiscal year<br>1979 (millions) |
|------------------------------------------------------------|--------------------------------|--------------------------------|
| Receipts from:                                             |                                |                                |
| 1. New authority-----                                      | \$91.4                         | \$199.6                        |
| 2. Existing authority this fiscal year plus carryover----- | 46.1                           | 42.7                           |
| 3. Total receipts-----                                     | 137.5                          | 242.3                          |
| 4. Acquisition outlays-----                                | 70.5                           | 174.1                          |
| 5. Net receipts on new authority (1 minus 4)-----          | 20.9                           | 25.5                           |

<sup>1</sup> Includes \$22,800,000 carryover from fiscal year 1978 new authority.

Senator HART. What has your public announcement that you intend to dispose of these commodities done with the prices?

Mr. MITCHELL. Senator, I don't think that the announcement probably at this point has influenced in any great fashion those commodities. I would ask Mr. Zabrowski if he would like to comment on this because that is an issue that has been traditionally discussed any time stockpile acquisitions or disposals are taking place.

Mr. ZABROWSKI. Senator, we have tracked a little bit on the prices of the materials in the plan, particularly those 11 for which we are asking new authority. Most of those prices have changed insignificantly. Of the 11 I think 1 has gone down just a little bit. A couple of others are up. As a matter of fact, I have heard that silver closed up yesterday at the limit, right across the board. So I think the



overall conclusion is that the announcement of these disposal plans has not at this stage impacted unduly or in an untoward direction the markets of these materials.

Senator HART. How was this list of commodities determined? Were you constrained by the market or budget or manpower, or did you feel that you couldn't get more disposal authority from Congress? What factors went into your judgment on the selection of these commodities?

Mr. ZABROWSKI. Well, in the past starting from the time we completed the interagency study, which has been mentioned before, and presented those results to the subcommittees that have jurisdiction, we understood that Congress intended to develop an approximately balanced annual materials plan in terms of net receipts.

Within that framework then the major constraining factor becomes the amount of any materials in the top priorities that can be purchased over a particular period of time without disrupting the markets.

Senator HART. Provide for the record the current market value of the 11 commodities which you are requesting authority for disposal. Would you also provide a list of other excess materials that could be disposed of during fiscal 1978 and fiscal 1979 within market constraints, assuming the legislation were enacted.

[The information follows:]

CURRENT MARKET AND VALUES, MAR. 6, 1978

| Commodity                                           | Unit            | Value per unit |
|-----------------------------------------------------|-----------------|----------------|
| 1. Aluminum oxide, crude.....                       | Short ton.....  | \$180. 51      |
| 2. Antimony.....                                    | do.....         | 3,740. 00      |
| 3. Asbestos chrysotile.....                         | do.....         | 482. 00        |
| 4. Bismuth.....                                     | Pound.....      | 4. 50          |
| 5. Caster oil, sebacic acid.....                    | do.....         | 1. 35          |
| 6. Diamond dies, small.....                         | Piece.....      | 45. 00         |
| 7. Diamond, industrial stone.....                   | Carat.....      | 11. 58         |
| 8. Iodine.....                                      | Pound.....      | 2. 59          |
| 9. Mica, Muscovite 1 and 2.....                     | do.....         | 12. 00         |
| 10. Silver, fine (Handy and Harmon base price)..... | Troy ounce..... | 5. 055         |
| Return to Treasury.....                             |                 | 1. 29          |
| Net.....                                            |                 | 3. 765         |
| 11. Tin (GSA sales price for today).....            | Pound.....      | 5. 48          |
|                                                     | Long ton.....   | 12,275. 20     |
| 12. Copper:                                         |                 |                |
| U.S. producer refinery price.....                   | Pound.....      | .63625         |
| Last week's price.....                              | Short ton.....  | 1,272. 50      |

Given current market conditions, no additional quantities of the proposed disposals (see insert for page 1-62) are believed to be marketable without market disruption in fiscal year 1978 and fiscal year 1979. The following materials are excess but are being held for future upgrading: Chromium, manganese ore, ferro manganese, quinine, and sapphire and ruby.

Senator HART. Mr. Mitchell, to repeat a question Senator Bartlett asked Mr. Bosworth and he deferred to you; because the United States is obtaining 80 percent of its tin from foreign sources and gets the rest from reprocessing used tin, why is the administration setting such a low goal for tin in its stockpile planning, especially in light of our statement that the price is rising and tin is getting more scarce?

Mr. MITCHELL. Good question. Would you like to respond?



Mr. ZABROWSKI. I am sorry, sir, I was writing down your request for the record. I missed the question.

Senator HART. Senator Bartlett's question earlier to Mr. Bosworth about tin and stockpile goals and asked why we are setting them at such a low goal for tin in our stockpile planning since the price is rising and tin is getting more scarce?

Mr. ZABROWSKI. Well, sir, I have to retreat back to the national security objective of the stockpile, which is not to trade in stockpile commodities for economic benefit. The primary objective in stockpiling is what is needed for the national security. And it has been determined through the methods that we use to estimate stockpile goals, that the supplies of tin available under wartime conditions, with the assumptions we are using of course, are more than adequate to meet our national security objectives in time of a major conventional war.

Senator HART. Your plan calls for the acquisition of 20 different stockpile materials for the remainder of this fiscal year and next fiscal year. And we would like for you to provide us the list of those 20 materials together with quantities and associated costs if you would.

Mr. MITCHELL. We would be happy to, sir.

Senator HART. And can this information be public?

Mr. MITCHELL. We would prefer not to.

[The information is classified and retained in committee files.]

Senator HART. Why is that?

Mr. MITCHELL. Basically because of the possible disruption or potential disruption in the markets if such acquisitions were made public prior to the time they were actually carried out. We would be more than happy to discuss those with you in executive session, or at any time other than a public situation at this point.

Senator HART. You just announced yesterday or recently disposals and you stated that didn't have a substantial market impact? Why would the acquisitions have impact on the market?

Mr. ROYAL. Senator, if I may address that question, and the way you phrased that question makes me a bit concerned about addressing it. The step that we have not completed in terms of our acquisitions is a fairly significant step; for example, Congress has not yet appropriated the money to carry out those acquisitions.

We have been before the Subcommittee of the House Armed Services Committee—no, excuse me, sir, the Subcommittee of the House Appropriations Committee that would vote on that appropriation and pass it on up to the floor for final approval. We have not yet even been before the proper Senate subcommittee that would take into consideration those acquisitions.

It might be, and we would hope not, it might be that one or another of the Appropriation Subcommittees, Committees, or the full membership of the particular House involved for some reason may reject one of our acquisition requests.

We feel that if the request becomes public prior to the time that it is approved by the Congress, that it would automatically instigate speculation in the commodity; and then indeed if the appropriation process did not allocate the money to purchase the materials that we have proposed for purchase, some people in that speculative process would be hurt.



And basically that is our reason for classification. There is one further reason for classification and that is that through the appropriations process Congress has in the past appropriated a lump sum amount for a certain number of materials. The exact breakout quantities of each of those materials has always remained classified. We have never revealed exactly how much of each one of those materials were to be purchased by that lump sum appropriation. And we think that that particular process of classification is appropriate in view of the national security considerations.

Senator HART. S. 2575 calls for authorization of acquisitions as well as disposals. And of course that would require public disclosure. What is your reaction to that?

Mr. ROYAL. Sir, perhaps it would if the Congress were to say that it would. And Senator, of course we have proposed that that provision be modified so that there be public disclosure of total dollar values. We feel that the Congress does have a legitimate right to look at both sides of the program. At the present time the Congress has authorization over disposals, and therefore they know the net amount of money and the materials which we are going to be selling and the receipts which we are going to be gathering in. Those receipts are, especially with the inclusion of your section 10(a) and what is known as the Bennett fund, those receipts would be applied primarily towards acquisitions.

We feel that it is appropriate really that the Congress be able to look at both sides of the program not only in the appropriations process and not only in disposing of materials, but in essence also authorizing those acquisitions.

So we feel that the step towards authorization of acquisitions is not an inappropriate request on the part of the Congress. And we have no objection to that.

Going back to your original question, I think that we would ask that the authorizing committee, when it looks at the appropriations for acquisitions, would also treat them as confidential, as does the proper appropriations committee at this point.

Senator HART. You plan to acquire materials in fiscal 1978. How much appropriation do you need for that? What is the status of that appropriation request now?

Mr. ROYAL. For fiscal 1978?

Senator HART. Yes.

Mr. ROYAL. The total amount of money involved is \$70.5 million. That includes transportation costs as well as acquisition costs for the materials.

Could I have just a second to confer?

Senator HART. Certainly.

Mr. ROYAL. Quite honestly, Senator, I don't know if that supplemental has yet been sent to the Hill by the President but I understand that it is quite likely that Congress will not act on the supplementals until some time late in this fiscal year.

Senator HART. What is the amount of your appropriation request for acquisitions in fiscal 1979?



Mr. ROYAL. \$174.1 million, including transportation costs.

Senator HART. How were the total acquisition figures determined and why aren't they substantially higher, since you have significant stockpile deficits?

Mr. ROYAL. There were primary budgetary constraints which the President and the National Security Council and OMB felt it appropriate to apply.

Senator HART. But you are disposing of a considerable amount also which will substantially, if not largely, offset those costs. That was, I take it, given consideration also, was it not?

Mr. ROYAL. The offset under the disposal legislation which we are requesting I think amounts to about \$25 million, "substantial," yes. It comes to about 10 percent of the total acquisitions. No; I am sorry, \$46 million.

Senator HART. Disposals do not exceed the proposed acquisitions?

Mr. ROYAL. Yes, sir, by \$46 million.

Senator HART. Then what are the budgetary constraints on acquisitions?

Mr. ROYAL. I think there was a feeling that indeed we do have these excesses. There is no argument that I know of—as to the fact that they are excesses. I think there is still perhaps some conflicting opinion on the proper amount of acquisitions and the phasing of those acquisitions on the priorities of those acquisitions.

Out of a number of opinions I think that we came to an acquisition program which the Federal Preparedness Agency felt was appropriate as a first step, as Mr. Mitchell said earlier, in the restructuring of the stockpile; and it was a step which was acceptable to other parties involved in considering these matters: the National Security Council for one.

Senator HART. Would you give us for our record a list of materials showing quantity and costs, Mr. Mitchell, in order of priority, that could be procured for the stockpile for fiscal 1978 without disrupting commodity markets; in addition to those 20 materials that you now plan to acquire?

Mr. ROYAL. Yes, sir, we could do that.

[The information is classified and retained in committee files.]

Senator HART. I would like to ask you gentlemen to remain and also Mr. Church to join you. And we will at this time go into executive session for the national security considerations. We thank our guests for being here this morning.

[Whereupon, at 11 a.m. the open session hearing was concluded, and the subcommittee went into executive session.]

## EXECUTIVE SESSION

Senator HART. Let's continue. I would like to ask the preparedness people some questions regarding the annual materials plan. Would you outline for us in general terms the process for developing this plan?

Let the record reflect that we are now in executive session.



STATEMENT OF DALE W. CHURCH, DEPUTY UNDER SECRETARY FOR ACQUISITION POLICY, OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING, ACCOMPANIED BY RICHARD E. DONNELLY, STAFF DIRECTOR FOR MATERIALS POLICY, AND STATEMENT OF JOSEPH A. MITCHELL, DIRECTOR, FEDERAL PREPAREDNESS AGENCY, GENERAL SERVICES ADMINISTRATION AND RONALD ROYAL, ASSISTANT DIRECTOR FOR CIVIL CRISIS PREPAREDNESS, FEDERAL PREPAREDNESS AGENCY, GSA, ACCOMPANIED BY: EDWARD ZABROWSKI, CHIEF, STOCKPILE POLICY AND OBJECTIVES DIVISION; PAUL KRUEGER, AND SEBASTIAN J. GIONFRIDDO

Mr. ROYAL. I think that Mr. Zabrowski, the Chief of the Stockpile Policy and Objectives Division would be the best one to do this.

Mr. ZABROWSKI. Senator, we begin the annual materials plan process by selecting from a list of materials that reflect Presidential priorities. It is sort of a subpackage, if you will, of materials that we think will fit with the expected budget constraints. And we send those down to our technical people in the Office of Stockpile Disposal who have market expertise and knowledge. From that list they provide us with a trial selection of acquisition and disposal materials. When we have that list, I, as chairman of the Annual Materials Plan Steering Committee, convene the committee, present the list to them, and then we task out to four subcommittees, activities that would be necessary to determine the viability of the proposed package.

The four subcommittees are: the Market Impact Subcommittee; the International Economic and Political Impact Subcommittee; a committee in DOD that we now call Strategic Implications but who insist they want their names changed before long; and a fourth Subcommittee on Economic and Budgetary Impacts.

Now, these committees all work with that list and screen through and look for problems with it. As they report back to the steering committee, these problems are then discussed before the members, resolutions are made, and then the subcommittees are retasked as necessary to produce a final acceptable list.

Once this list is developed, we—well, we will have provisions for advisory committees to advise us on the technology, the substitutes and the like. But we don't have an advisory committee process working at this moment.

Now, this list then is approved by the Director of FPA and the Administrator of GSA and is sent to the National Security Council and the Office of Management and Budget. While that is being reviewed over there, we are in the process of preparing a draft report. If there are any changes that are required on a higher level of review, then we make those changes, produce a final report, circulate it to the agencies that are involved, receive comments from them, and then transmit the final document to the National Security Council; with an information copy to the Office of Management and the Budget.

Senator HART. You started out by saying you start this whole process under certain budgetary constraints. Who conveys those to you and how are they derived?



Mr. ZABROWSKI. Well, they are not conveyed formally. But during the most recent go-around we knew pretty much what we wanted to do because we had developed an earlier annual materials plan which was aborted, if you will, because of the transition and the moratorium. That earlier plan reflected the highest priority materials and there was sort of an internal desire to start the plan off at a modest enough level to make sure that we had all of our procedures right before we decide to go to larger expenditure categories.

We decided to replicate this because we do need some of that experience. Now, next year in terms of budget targets and so forth, we will be involved in zero-based budgeting. We got in a little late on that this year for the first time. But next year we expect our annual materials plan to be consonant with the zero-based budget concept. And this will imply, of course, that the President has made his selection from at least three options, maybe more.

Senator HART. Does that mean you will start the whole planning process with a budget ceiling or not?

Mr. ZABROWSKI. No; we won't start it with a budget ceiling but at some point we would have several options: If we can spend this much, we will buy these, and what we will buy if we can't have as much. And then wherever the President's mark or OMB's mark comes is the final package that we would put in the annual materials plan.

Senator HART. In this plan we have here you indicated that President Carter changed the priority for acquisitions. Can you explain that change?

Mr. ZABROWSKI. Yes, sir. Under the priority guidance provided by President Ford for stockpiling purposes we break the entire economy into nine pieces. There are three tiers: the defense tier, the essential civilian tier, and the general civilian tier. And then there are 3 years of war. Making nine possibilities in all.

Now, President Ford took those nine possibilities and ordered them for us in a particular way. When President Carter gave us a new policy guidance, he said, "I basically accept the old guidance with these exceptions: We want to get into our first readiness posture by preparing for a 1-year NATO type war in Europe with not more than 30 days warning."

Those were his top priorities.

And then his next priorities were to fill out at the higher conventional war level the first 3 years of defense needs for the stockpile and then go back and complete the first year of the war. In other words, they are most concerned about being ready for a NATO-type war, and then taking care of all defense requirements, and then taking care of all the first-year requirements. And then as we move out beyond that, there is a fairly logical way in which we can proceed.

Senator HART. In this current plan—

Mr. ROYAL. Senator, could I add one thing on the budgetary constraints? I think that perhaps we have indicated too strongly that they are arbitrary in some sense or another or dictated in some sense or another. One of the primary factors is the disposal rates which we estimate the market can take; in short, the amount of material that you can sell during the coming year without undue disruption, as the act calls for us now to follow.



And in fact there are upper limits to the excess materials, even though in total they amount to large amounts of money, Mr. Chairman. What can be marketed during a coming year without undue disruption to the market is a major budgetary constraint too, if you are trying to operate a balanced program whereby your receipts and acquisitions roughly balance off.

Senator HART. I think there is some concern on our part about the urgency of all of this and if there is, under the old formula of priorities or the new ones, if there are senses of urgency about acquisitions then why either on the acquisition or the disposal side of the budget ceilings are you not even getting near the budget ceiling acquisitions? Is there some urgency about some of this or isn't there?

Mr. ROYAL. Well, as I stated earlier, under the new disposal authorization we will have a surplus of about \$45 million over the approximately \$250 million that we intend to acquire. If indeed that was going to miscellaneous receipts and be lost to future acquisition programs, it would perhaps be a point of legitimate concern on your part and our part.

With the establishment of the fund we discussed earlier, those surplus proceeds would go into that fund and would be available over the next 2 years for acquisitions also.

Senator HART. That presumes some urgency of the fund would have passed?

Mr. ROYAL. Yes, sir, it does presume that.

Senator HART. What if you don't get a fund?

Mr. ROYAL. In that case the surplus would go into general receipts.

Senator HART. I understand that but what about the priorities and the urgency? Are you going to feel any differently about that?

Mr. ROYAL. We would simply, as far as the agency is concerned, put what we felt were the materials that had both priority and urgency, Senator, at our next budget request, which we would forward of course to the Office of Management and Budget and attempt as best we could to see that that was the request that came to Congress for appropriations.

Senator HART. With the plan there is a statement:

The annual material plan represents a major effort to develop each year a reasonable and defensible list of materials for acquisition and disposal: to balance the budget constraints and national security requirements with the contemporary capabilities of the commodities market to accept additional activity.

Would you expand on this statement?

What does constrain the list of acquisitions and disposals, the marketplace or some budgetary ceiling? Or if both, to what degree?

Mr. ROYAL. Are you referring to the testimony, Senator?

Senator HART. The statement contained on page Roman numeral 2-3 in the annual plan.

Mr. ROYAL. Mr. Zabrowski?

Senator HART. All I am trying to do here is get a feel for what drives this whole process? Is it budget constraints or national security requirements? If both, in what degree to each other?

Mr. ZABROWSKI. Well, it is both, Senator. The primary drivers I would say are the priorities that were given by the President. His first set of priorities said, as I mentioned just earlier, look at the first year



of a NATO type war in Europe and then the requirements for all three years of defense and see if there is anything beyond that for the immediate future. Well, it was really the first year of the NATO war and the defense requirements that we were looking at. Within that framework there is a limit, based on conditions prevailing in the marketplace, as to how fast we can acquire materials.

There is a further limit, based on budgetary considerations and the stockpile, Mr. Chairman, is just one of many dimensions of the entire national defense system in which scarce dollars have to be rationed.

Mr. SMITH. Let me go back to your scarce dollars again. I think that is what concerns us. You talk about scarce dollars. Your program in effect generates dollars for the Treasury.

Mr. ZABROWSKI. The disposal program does; yes.

Mr. SMITH. The disposal program and then the acquisition program in net will generate dollars for the Treasury. Why do you speak in terms of scarce dollars as constraining the program?

Mr. ZABROWSKI. Well, when we put together the plan, of course, we are never certain that we will get disposal authority from the Congress. And therefore, on the authorization side, sir, we have to plan accordingly because if we don't get these disposal authorizations, then we aren't going to be able to conform with the President's other objectives in terms of national defense.

Mr. SMITH. So there is an independent budget ceiling on acquisitions and that is what drives your planning?

Mr. ZABROWSKI. Well, the primary ceiling on our acquisitions is a target given to us in terms of priorities. We try to work out a plan that would satisfy these first sets of priorities. Then when we develop the list of materials and take it through the Annual Materials Plan Steering Committee process and find out how much of these materials can be acquired without disrupting the marketplace, then we can set a disposal plan that will approximately balance off our acquisitions and neutralize the fiscal impact or approximately neutralize it.

Mr. MITCHELL. Jim, if I might add something? I think we understand the point of your question and I think what Ed has said and the way I understand it is that there are a number of other constraints other than just the budgetary figures or national security concepts. And that is what Ed mentioned.

First, he looks at the national security, the security implications. And then he looks at how quickly or can they actually dispose or sell in the market. And then based on other considerations such as budget implications for that year you have to be somewhat conservative and you are trying to get to a point where you both sell and you buy at about the same levels. The object is not to make money for the Treasury. The object is to get close, as I understand it, to both acquisitions and disposals, based on those concerns.

Senator HARR. Is that it? You are trying to do that?

Mr. ROYAL. And if I may add one other thing, Mr. Chairman? I think Mr. Zabrowski hit on a very important point. We don't know what the Congress may do with the plan that we send up. I had mentioned earlier that the appropriations are classified until they are acted upon because of the problem of perhaps certain materials would not be appropriated. But we face that perhaps on a larger scale in disposal.



And when Mr. Smith talks about the fact that we are generating additional revenues, indeed if the entire disposal package were to pass, we would, as I stated before, in this particular case be generating \$45 million worth of revenues.

I might mention that one of the primary items in the disposal package, silver, Mr. Chairman, will, we hope, generate \$81 million in 1979 toward those acquisitions. Now, if that for some reason—and of course we would hope not and we solicit the help of your committee in obtaining this disposal legislation, but it was refused the last time we asked for it—but if perchance that particular item was not included for disposal, then instead of generating the \$45 million net, we would at that point be on a \$45 million deficit basis.

Senator HART. Now, I think that it seems to me you are trying to anticipate Congress; we are trying to find out what you need. You are trying to shape your package according to what Congress will buy and are concerned not only about the authorizations committee but the Appropriations Committee and what are they going to do. We want you to tell us what we need to do. We got the chicken chasing the egg around the barn here.

Mr. ROYAL. The disposal package that you have does tell you what we would like there. And we are willing, as we said earlier, to discuss in detail the acquisitions at this point, if you would like, as to each individual material and the cost associated with it.

Senator HART. Senator Thurmond. We are in executive session.

Senator THURMOND. Mr. Chairman, I have a few questions here I would like to propound. I want to say in the beginning I know Mr. Royal well. He is from my home city of Aiken. His father was one of the best businessmen in our city and he is an excellent businessman. And I would be inclined to follow recommendations he makes unless his competitors tell us otherwise.

I have a few questions. You can submit the answers if you wish. What process did the administration follow in determining the recommendation for the proposed stockpile disposals?

Mr. ROYAL. Could I refer that to Mr. Zabrowski who is chief of our stockpile—

Senator THURMOND. All right, and any questions that I propound that you want to answer for the record, I will let you answer them for the record.

Mr. ROYAL. Thank you, Senator.

Senator THURMOND. I think the record should show the answers to these questions. Now, does anyone want to answer that now or for the record?

Mr. ROYAL. No; I think Mr. Zabrowski can give you more detail than I could on that. I suggest he address himself to that.

Mr. ZABROWSKI. The materials that we select for disposal to be in consonance with the acquisitions, Senator, are selected on the basis of the judgment of our staff in the Office of Stockpile Disposal who keep current on market developments in all our stockpile commodities. They know at any particular point in time which materials can move well in the market and which cannot. And they have a pretty good feeling for where these materials will be in a year or 2 years from now.



So that when we settle down on a list of acquisitions, it becomes their job to select from the list of materials that are excess to stockpile goals: quantities and particular materials which they believe can be marketed over this period.

Senator THURMOND. Now, was a study made of the stockpile needs and if so, provide for the subcommittee a copy of that study. In other words, did you make a study of what the stockpile actually needs?

Mr. ZABROWSKI. Oh, yes, sir.

Senator THURMOND. And if you did, can you provide a copy of that study for the record?

Mr. ZABROWSKI. Yes, sir. In terms of our needs, they are really public information in the sense that we are talking about it in terms of our stockpile goals, which we publish with our inventory figures. These are all held in the public domain now.

If you are referring to the phase 1 and phase 2 studies that led to the current methodology we employ and so forth, that is a national security study, a National Security Council study. And I can't speak for them as to, you know, whether or not they would be willing to release it.

Senator THURMOND. In other words, I am trying to hit upon what you based your recommendations on. Did you base them upon a study of the needs of the stockpile and therefore you made your recommendations accordingly or for some other reason?

Mr. ZABROWSKI. Yes, sir. And I think that we may have already supplied that study in the form of the annual materials plan, which I have delivered to the office of the chairman of this subcommittee yesterday.

Senator THURMOND. I was impressed with what the chairman said a few moments ago. We want to know what you feel this country needs to stockpile. And we want to know what you feel our Nation requires to protect the security of this country, as I understood the chairman's position, and not what you think the Congress might pass. That is not the question.

You have a responsibility to tell us what this country needs in the way of stockpiling of the various items. We have a responsibility in the Congress to act upon that: either favorably or unfavorably or favorably with amendment or what not. But we want your opinion. You are supposed to be experts. We want your opinion on these matters.

Now, did the administration consult with industry representatives as to the economic impact of the disposal recommendations?

Mr. ZABROWSKI. Not during the development of the annual materials plan, sir. The consultation with industry when it comes to disposals is handled subsequent to the enactment of disposal authority. And Mr. Gionfriddo down here on the right is an expert on these particular procedures and could probably inform you better than I.

Mr. GIONFRIDDO. Senator, we are in constant touch with the markets on especially the major items, and we have a very good feel of what will disrupt a market and what will not. Does that answer your question?

Senator THURMOND. No; it doesn't. You may have the feel, but I want to know, did you get the opinion of industry on these matters and what impact they felt it would have upon the disposal recommendations?



Mr. GIONFRIDDO. We discussed with the Department of Commerce, who has direct contact with the consumers, and we also have direct contact with people that we have been selling to and we do consult with them all the time on commodities that we are marketing.

Senator THURMOND. So you did consult the industry then before making your recommendation about the impact that the disposal recommendations would have?

Mr. GIONFRIDDO. No; the disposal rates were kept quiet until recent days when they were released here in Congress. But as far as specific rates, we did not talk to them about that. But as to what the market was and our current actions in the market, we, as I say, have a good feel of what is in their judgment disruptive.

Senator THURMOND. You are saying you have a good feel of it. That is your opinion. You might be wrong. Isn't it worthwhile to consult with the industry, with some of the leaders of this Nation, the businessmen who helped to make this country great, isn't it worthwhile to get their opinions—whether you follow them or not—as to what impact your disposal recommendation will have?

Mr. GIONFRIDDO. Well, Senator, we are, as I say, in constant contact with them. The major commodities that we are disposing of, we are currently selling. So we are talking to them about the current rates at which we are disposing of the materials.

Senator THURMOND. So you did ask their opinion then?

Mr. GIONFRIDDO. Yes.

Senator THURMOND. Thank you. In 1976 the committee refused to allow any of the silver disposals requested by the administration. Did that position affect your current recommendations?

Mr. ROYAL. Senator, I could perhaps address that. No; I would say it did not. It is our feeling that national security does not require silver in the national stockpile. That may be a controversial opinion but it is our honest opinion, our belief. It comes out of a 2-year agency study which has been reviewed by two national security councils: One under President Ford, another under President Carter have agreed with us. Consequently we feel the retention of silver in the stockpile is not necessary to national security. And therefore, we put the proposal forward to the Congress for a disposal of a portion of the silver in the stockpile on the basis of the belief that silver is not necessary to national security in the stockpile.

Senator THURMOND. Now, do you mean by that that if we have a war, that silver would not be an essential metal that would be required?

Mr. ROYAL. It would be required, Senator, but our domestic capacity to produce silver, along with our assured imports—we consider Canadian and Mexican producers as assured imports whereas Far Eastern or African are not considered assured imports and are discounted in cases of emergency—but the amount of silver produced in the United States and in the Western Hemisphere is sufficient to protect the national security in time of war.

Senator THURMOND. Are you assured that we would be able to obtain that silver from other countries? Suppose we became isolated and had to be self-sufficient, then where would we be?

Mr. ROYAL. If we became isolated from Canada and Mexico, we probably would have a lot of problems in addition to silver.



Senator THURMOND. In other words, are we self-sufficient?

Mr. ROYAL. In terms of domestic production, no; but in terms of Western Hemisphere, yes.

Senator THURMOND. Western Hemisphere, by that do you mean that includes Central and South America?

Mr. ROYAL. To some extent, yes.

Senator THURMOND. Suppose, for instance, we dispose of the Panama Canal and suppose that Castro and the Communists move in down there and the Soviet Union, and we lose control of the canal under these treaties—and we lose control of the canal and we should become isolated. Four Admirals have written the President a letter on this general point: that if we lose control of the canal and we become isolated at time of war, then the very existence of our Nation is threatened according to Admiral Carney and Admiral Anderson and Admiral Burke and Admiral Moorer. If we are isolated then, then what happens?

Mr. ROYAL. In the unlikely event that we are isolated from Canada, Mexico, and the Panama Canal, then indeed I would think that it would be incumbent upon the Federal Preparedness Agency to restudy the silver goal and indeed perhaps change it.

Senator THURMOND. It might be too late then. If a war comes, it will come quickly, not like World War II. During World War II we had time to train troops for several years and get those troops overseas and in the position to fight. But if another war comes with missiles and planes that fly several times the speed of sound, a missile could move at such quick speed that if we are not ready, it may be the end.

I am just wondering if you thought of these things because it seems to me we have to be nearly self-sufficient in everything, not only fuel but in minerals and other things.

Now, as long as we can keep the shipping lines open, we can get minerals from Indonesia and other countries. But assuming that we should be isolated or these lines of travel are eliminated, what position do we find ourselves in?

Senator HART. Mr. Church?

Mr. CHURCH. Senator, with respect to silver, as far as the Defense Department is concerned, all of our needs in silver can be met with domestic producers.

Senator THURMOND. Now, how about other needs?

Mr. ROYAL. Essential and general civilian needs would require imports. But the great majority of those imports could be from Mexico and Canada. Now, if we hypothesize, if we assume that we are cut off from Canada and Mexico, then some certainly essential and general civilian needs would suffer.

Senator THURMOND. Now, speaking of defense, what are the main uses of silver from a military standpoint?

Mr. CHURCH. Primarily electronics and various kinds of batteries that are used and compounded with silver. Silver zinc is the primary battery that is needed in defense needs.

Senator THURMOND. How much silver is estimated the United States would need for the MX program alone?

Mr. CHURCH. Very little. Because at one time it was considered to be needed a silver zinc battery in the MX, but because of the high cost of



that battery, it drove us to look at alternative sources. And we have found those adequate sources in the alternative, Senator, at a much cheaper cost. And so if we were to go to deployment of the MX, we do not need the silver requirements it was once postured that we might.

Senator THURMOND. What are the present military uses of silver which were unknown in 1945, and 1955, and 1965?

Mr. CHURCH. Well, the electronics industry has grown greatly since those periods of time you mentioned so that the electronics industry is probably the greatest consumer in various electronic components and also the development of power sources such as the compounding of silver with other metals to make power sources.

Senator THURMOND. Is it reasonable to expect future needs which may not be recognized at this time?

Mr. CHURCH. We know of none, sir.

Senator THURMOND. I didn't ask you that. Is it reasonable to expect future needs which may not be recognized at this time? Just like now we recognize needs that did not exist maybe in 1945 or 1955 or 1965, is it reasonable to expect future needs which may not be recognized at this time?

Mr. CHURCH. Well, obviously we don't have a perfect crystal ball for all things that might happen, but in looking at where the technology is going and where it is leading us and what things that would be used for defense needs, we see none. And obviously we can only see those things that we can look at. You know, and you never can tell. But where the technology exists today and what materials we need and where it looks like it is going in the future, we see no need.

Senator THURMOND. So your answer is no to that question?

Mr. CHURCH. I might also add to the postulated disposal, that the Federal Preparedness Agency would like to make a very small percentage of the total requirements for silver in any case, but certainly a very small requirement of the portion of the DOD's needs.

Senator THURMOND. The present goals set for the silver stockpile differs substantially from that of the previous administration. What is the basis of the difference?

Mr. CHURCH. I would have to defer to FPA in that.

Mr. ZABROWSKI. Our goal in—well, starting back to say 1969, our goal for silver was lowered from 165,000 ounces to 139,500 ounces, based on a revised policy of discounting for foreign country supply concentration, and including additional supplies from Peru and Mexico.

Then as you may remember, in 1973 President Nixon developed the new stockpile policy guidance and dropped war planning guidance from a 3-year to a 1-year basis. And the goal at that point became 21,663 million ounces. From that point on until we completed the 1-year interagency study, the goal remained at roughly 22 million ounces. Upon completion of the study, which updated not only our methodology and calculational procedures but also the data that we use on requirements, on availability of supply, on substitutes, the ability of the economy to sustain austerity and so forth, it was determined at that time that the stockpile goal for silver could go to zero.

This was reviewed subsequently at least twice in the interagency considerations. And we have stayed by that particular zero goal since then.



Now, as Mr. Church remarked, even with the zero goal, we aren't proposing to dispose of all of our silver but only a fraction of what we have in the inventory.

Senator THURMOND. What confidence do you have that the requirements would not change substantially in the future?

Mr. ZABROWSKI. Well, the confidence that we have is based on analysis of trends and data through the years, and the diminishment in a relative way in the use of silver in the processes it had been used before.

Senator HART. Would you walk us through on one commodity such as tin, and tell us how you establish the goal? We are still trying to determine how the process works, or if you want to pick silver or something else. The silver goal is zero now. But pick tin or silver or copper, how is the goal established?

Mr. Zabrowski. Yes, sir, we can do that. There are two ways that we can do that. We can give you an overview on the entire goal-setting process or we can work right from a set of numbers for a particular material. Would you prefer the numbers?

Senator HART. I don't want the numbers. I want the factors: How you establish that goal; what considerations go into it? And pick a commodity if it is easier to work from one.

Mr. ZABROWSKI. Well, we were talking about silver and I have the silver sheet here.

Senator HART. Fine. We will continue with that.

Mr. ZABROWSKI. In the course of developing our estimates of stockpile goals we, as I mentioned before, divide the economy into three parts. We make entirely separate estimates of the requirements of these three segments of the economy. Just to mention them again: The defense tier; the essential civilian tier; and the general civilian tier.

We also, I need to add at the beginning, utilize what we call the supply requirements imbalance approach. In other words, we separately estimate supplies and we separately estimate requirements. And then for each of these three segments of the economy and for each year of the war we provide separate estimates of whether or not there is an imbalance.

Now, one of the first things we do is to estimate the wartime gross national product, which incorporates what Mr. Church had mentioned earlier: The DOD budgeting assumptions as well as our own assumptions on what the gross national product would look like, with no adjustments.

And then we introduce our planning factors, as we call them, which make adjustments to our gross national product figures.

One of the first things we do after we have the gross wartime requirement is introduce our assumptions about austerity that could be laid on the economy. To do this, we look at the rate of "real per capita personal consumption expenditures" for the year before the war. Then we assume that this rate will drop over the period of the war, as the administration introduces policies that would have people spend less per capita.

Next we take a look at the composition of these personal consumption expenditures. And we also assume that policies can be developed or will be developed that would discourage consumers from heavy



buying of durable goods. And we assume we can switch their expenditures into nondurable goods and services, to some degree.

When we have done that, we also look at investment because it is reasonable to cut back on residential type of investment, as nonessential investment, in wartime. And try to get as much of this as we can into machinery and equipment type of investment, which is the type of thing you would be moving into in a war.

Then we make assumptions about our foreign trade. Because there are countries that we trade with in normal times that are now in the war zone, we make assumptions consistent with our war planning scenario as to whether or not we would be able to have access to those countries. Then we make an adjustment to our export and import factors that would be consistent with those particular assumptions.

We also have a figure that we call the material consumption ratio. And I can probably best explain that a little later and just mention it now. But the material consumption ratio refers to the physical amount of a particular stockpile of a material that is consumed in the economy per unit of output.

And we have assumptions about these material consumption ratios and how they apply to each year of the war and each sector of the economy.

Now, we further have estimates of the substitution that is available for each of the materials in each of its uses. And we amalgamate all of these factors, if you will, through their effects not only on the gross national product but on what we call the industrial structure of the United States: The output that is generated by that structure in wartime conditions, Senator, to estimate what the total requirement for each of our stockpiled materials is.

And then, as I said, we have a supply and demand imbalance approach. So we move to the supply side. And we look at all the potential suppliers of this material, based on availability of world trade in peacetime conditions. We then make adjustments to the expected supply figures, reflecting not what we believe these countries would be willing to supply us as our allies under wartime conditions, but what they would be willing to supply us if they were operating at full economic capacity. That is the first basic input.

And then we have a rather detailed system for estimating economic and political reliability of each of these supplier countries. The supplies of these countries are discounted at different rates depending on whether we are looking at them as potential suppliers for the defense tier, the essential civilian tier, or the general civilian tier.

After each of these sectors of the economy have had the discounts applied, then we make adjustments for any transportation losses.

Oh, I should add by the way that we just automatically zero out the Communist bloc countries and the war zone countries as sources of supply.

So the final estimation, if you will, is the transportation losses that would be incurred in moving these strategic materials to the country.

Once we have that as an estimate of supply, as I said earlier, then we look at the requirements. If the requirements exceed the supply, then we would stockpile for the particular imbalance. At that point it becomes a candidate for stockpiling the amount of that particular imbalance.



Now, as I noted, as you are able to detect, we do a lot of work on this with computers and numbers and so forth. And at the end of this process we get some real men back into it in what we call the Special Materials Review Committee, who have developed a list of criteria. They look over the candidate goals, determine if further adjustments are required on the basis of factors that just can't be taken account of in the computer, and then the goal itself—well, the proposed goal is circulated to the interagency group which reviews it.

If at that point everything appears to be fine, we will send it to the director of the Federal Preparedness Agency who will certify it out as a valid stockpile goal.

Senator HART. That is very helpful. Has all of this taken place inside the Federal preparedness or has DOD participated in any of this process? Mr. Church?

Mr. CHURCH. We participate in the process.

Senator HART. Well, explain a little bit how, if you would.

Mr. DONNELLY. Like I said earlier, we have participated through membership on the various committees. I also pointed out that we have assisted the Federal Preparedness Agency in projecting what shipping losses would be during the war on the high seas. That was done through the Office of the Secretary of Defense, the Joint Chiefs of Staff and assisted by the Defense Intelligence Agency.

The Annual Materials Plan Steering Committee has as part of its members Mr. William Levitt, who does review all the materials and goals to our satisfaction.

Senator HART. So it is safe to say that almost all the levels that are being described here in this elaborate process participate?

Mr. DONNELLY. It is safe to say and is correct.

Senator HART. How much of our consumption of silver comes from Mexico and Canada, our sources of supply?

Mr. MITCHELL. Thirty-five percent I believe is the figure that you have there in your U.S. imports of silver from Canada.

Mr. ZABROWSKI. Yes, 18 percent from Canada and 14 percent from Mexico, in terms of annual U.S. consumption.

Senator HART. How much from other foreign suppliers?

Mr. ZABROWSKI. Let's see. Peru is the largest one. That is 7 percent of U.S. consumption. We supply, our own supply is quite a large percentage. So beyond Peru I would say—I would, without having the number in front of me, guess it is something anywhere from 5 to 8 percent.

Senator HART. So it is safe to say—

Senator THURMOND. How much do we supply?

Mr. ZABROWSKI. Oh, I believe we account for roughly 50 percent of our own supply.

Senator HART. Adding the United States, Canada, and Mexico together, then tell us how much is supplied by other sources.

Mr. ZABROWSKI. All right. I will in a minute, sir.

Mr. ROYAL. I think I have those figures. Domestic silver ores have supplied a steady 20 percent of annual 1973 to 1977 U.S. industrial consumption. Secondary U.S. silver production has grown to supply another 30 percent of U.S. silver consumption. Then imports from Canada amounted to 18 percent; from Mexico 14 percent; and



from Peru 7 percent, during the 1973-77 period, in terms of U.S. consumption.

Senator HART. Let me restate the question. Add the United States, Canada, and Mexico together, and how much of the remaining supply comes from other sources, percentagewise? Fifteen percent?

Mr. ROYAL. No, 18 percent.

Senator HART. Twenty percent?

Mr. ROYAL. Eighteen percent in terms of U.S. consumption.

Senator HART. Senator Thurmond.

Senator THURMOND. Have research and development projects of industry, which are now on the drawing boards or in the laboratories, been considered in setting the new silver goals?

Mr. ROYAL. Not to our knowledge, Senator. We would be glad to look into that further and try and answer for the record.

[The information follows:]

Yes. Research and development projects of industry were considered in establishing the stockpile goal for silver. The evidence available suggests that there are no significant silver uses in the foreseeable future that would result in revision of the stockpile goal for silver.

Senator THURMOND. I presume our present stockpile disposal recommendations have been predicated on our present stockpiles which were passed in the 1930's and 1940's. Would the same levels be proper under updated strategic materials stockpile velocity?

Mr. ROYAL. They would be, Senator, I believe.

Senator THURMOND. Would not a large disposition of our silver stockpile be a windfall for the present users of silver, at the expense of the taxpayers and our national security interest?

Mr. ROYAL. Not possibly at the expense of the taxpayers because the silver was bought at a much lower price than which it will be disposed of at the present time. Therefore, the taxpayers will make a very nice profit on their investment.

As to windfalls for the users, I don't feel sufficiently qualified to address myself to that except to say that again in composing the annual materials plan market impact is a factor which the law requires us to take into consideration. And we are directed by the law to avoid market disruptions to producers or consumers. And indeed, we make every effort in marketing to—in fact, we are directed by law to do that.

Senator THURMOND. Since we are now depending on increasing imports of silver, what would be the impact if the present silver exporting countries prohibit silver exports, as Russia has done since 1970?

Mr. ROYAL. To prohibit silver exports, what would be the impact?

Senator HART. What if we couldn't get silver from Canada, Mexico, and Peru? That is the question.

Mr. ROYAL. Oh, that is the question? As I said before—and I think I have already answered that question—

Senator HART. No, you were talking about a military situation, Senator Thurmond's question is economic: What if they decided not to export silver?

Mr. ROYAL. In terms of the stockpile I would suppose that we would immediately review our stockpile goal. In terms of the rest of the economy, I am not prepared to address that because I think it perhaps falls under the Department of the Treasury.



Senator THURMOND. Do you want to answer that for the record?

Mr. ROYAL. I would be glad to answer that for the record.

[The information follows:]

*Question.* In the event that all silver imports were cut off, what would be the economic impact? Has this been considered in setting the silver stockpile goal?

*Answer.* The full impact of a country, region or worldwide embargo of silver imports to the U.S. has not been assessed. However, the FPA political reliability factors estimate the likelihood that exports of strategic materials to the U.S. may be withheld by individual countries during an emergency. These factors are a part of the silver goal calculation. If all foreign countries were lost as supply sources, defense requirements would still be covered by a factor of more than 3, although essential and general civilian requirements would be impacted.

Senator THURMOND. What consideration has been given to the dependability of the countries from which we are importing our critical supplies?

Mr. ROYAL. A great deal, Senator, in that, as I said earlier, we feel that both Canada and Mexico are fairly dependable.

Senator THURMOND. Have priorities been considered for every stockpiled commodity in terms of its import intensity?

Mr. ROYAL. Yes.

Senator THURMOND. Has an assessment been made of the impact of a sale of the silver stockpiled in the mining industry in such States as Nevada, Colorado, Montana, Idaho, and the other States where silver and related metals are mined?

Mr. ROYAL. Yes, sir. As required by law under the Strategic and Critical Materials Stockpiling Act of 1946 as amended, we are directed to market in such a manner as not to cause undue disruption to producers, consumers or other users of the material. Therefore, consideration has been given to that factor.

Senator THURMOND. And at what silver price will domestic mining be decreased by 20 percent, 50 percent?

Mr. GIONFRIDDO. Senator, I don't think it would be decreased by very much. In our experience of disposing of silver during 1968 and 1970, the market did not go down. We disposed of 300 million ounces, and the market in fact remained stable over that period.

Senator THURMOND. Has a study been made of what other metal supplies may be reduced as a result of decreased silver mining activity?

Mr. ROYAL. Not to my knowledge, Senator. We would be glad to check into it and supply it for the record.

[The information follows:]

Yes. 70 percent of domestically mined silver is a byproduct of other metals' production; i.e., lead, zinc and copper. Therefore, our study concluded that silver production would not be sensitive to changes in silver prices. However, silver production would be sensitive to price and production changes of the major metals mined with silver.

Senator THURMOND. I want to thank you gentlemen and you, Mr. Chairman. I have a meeting if you would excuse me.

Senator HART. We are concluding the hearing. We will have industry witnesses tomorrow and I hope you gentlemen will hold yourselves available in case we want to ask additional questions. We will be in touch with you on that.

We appreciate your statements here this morning, your testimony, and your answering our questions. Thank you very much.

[Whereupon, at 12 noon the subcommittee adjourned, to reconvene at 9 a.m. Thursday, March 9, 1978.]



## CONSIDERATION OF STOCKPILE LEGISLATION

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THURSDAY, MARCH 9, 1978

U.S. SENATE,  
COMMITTEE ON ARMED SERVICES,  
SUBCOMMITTEE ON MILITARY CONSTRUCTION AND STOCKPILES,  
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 9:10 a.m., in room 1223, Dirksen Senate Office Building, Hon. Gary W. Hart (chairman) presiding.

Present: Senators Hart and Hatfield.

Also present: James C. Smith, Edward B. Kenney, professional staff members; Jeanie Killgore, clerical assistant; Lew Ashley, assistant to Senator Hatfield of Montana.

Senator HART. The hearing will come to order.

This is the second day of the Senate Armed Services Subcommittee on Military Construction and Stockpiles to examine all pending stockpile legislation, and as I noted yesterday, there is a considerable amount of it. We will concentrate primarily on industry witnesses who will generally be discussing specific stockpile commodities. We do have available administration witnesses and we may recall them near the end if there is need to complete the hearing record.

Our list of witnesses today is rather long and I want to hear as many of them as possible so I would ask all of those industry witnesses to be brief. If you have lengthy statements, I would urge you to provide those for the record and to a degree, if possible, summarize them. We are constrained by time due to the debate on the floor. This record will be kept open until March 15 so that any interested party may submit additional information that they wish to have included in the record.

It is a pleasure to have one of my colleagues on the Senate Armed Services Committee, the senior Senator from Arizona, with us this morning, who has a statement to make with regard to the pending legislation.

Senator Goldwater, welcome. You may proceed.

### STATEMENT OF HON. BARRY GOLDWATER, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator GOLDWATER. Thank you, Senator Hart. I thank you for holding these hearings. In addition to my statement, there will be a statement by George Munroe of the Phelps Dodge Corp. and Dr. Brent Brown who is director of economic planning of our Governor's office.



Mr. Chairman, I am delighted that you are holding early hearings on legislation that is of great importance to a major domestic industry and employer, and to the national security.

As you know, the copper industry is a leading employer in several States and pumps hundreds of millions of dollars into the economies of many State and local governments in the form of taxes and services. If we allow the copper industry to collapse, many American communities will collapse with it.

For example, in my State we employ 25,000 people. Out of the 15 copper-producing mines, Arizona has 9 of them and we produce 63.6 percent of the copper produced in this country or a little over 1 million tons.

Mr. Chairman, I am cosponsor of S. 2167, which in effect would exchange excess tin for copper in the strategic stockpile. Also, I am cosponsor of S. 1810, which is similar to S. 2167, but applies to several additional commodities, not just tin and copper.

Mr. Chairman, to be specific, S. 2167 would sell 30,000 tons of tin from the national stockpile and use this money for the purchase of 250,000 tons of copper. As I understand it, it would not cost a dollar out of the Treasury.

Mr. Chairman, this proposal would be a bargain for the Government. It would allow the United States to acquire needed copper for the strategic stockpile at a bargain price.

Copper is a durable commodity. It will not deteriorate in the stockpile.

Now, this bill would not solve the copper industry's problems of itself or overnight, but it would go a long way in improving market conditions.

Mr. Chairman, the copper industry is facing the worst trouble it has been in for many decades. In Arizona alone, there were 9,000 unemployed mine workers at the peak of the crisis in an industry that normally provides one out of every eight jobs in the State.

This trouble is not the fault of our industry. The major source of trouble is the foreign glut on the copper market which is caused by government-owned and government-operated foreign mines, such as in Zaire and Zambia, that are producing at maximum capacity without regard to market conditions.

This means our private companies are not facing traditional free enterprise competition. The excess foreign production overhangs the market by about 1 million tons above the normal inventory level.

Although domestic consumption is on the rise, the foreign excess inventory is so gigantic, it has forced copper prices below the point where our mines can be operated comfortably or profitably.

Mr. Chairman, I would ask, why should the entire burden of reducing the overhang, which they did not cause, be placed upon American mines?

Our industry has already cut production back to about 60 percent of capacity. Yet, foreign producers, who supplied about 22 percent of refined copper in the United States last year, are running at or near 100 percent production.

On top of this foreign governmental competition, which is severely distorting normal market conditions, our industry is saddled with the



cost of compliance with environmental controls and employee safety regulations which do not exist at all abroad.

Since our Government is responsible for these costs, which add at least 15 cents a pound to the cost of smelting and refining copper, it is only logical that our Government should take some action in helping to restore the American industry to the competitive position it has lost because of these regulations.

Now, I am not saying existing environmental and safety rules are all bad. But I am suggesting that the Government should assume part of the burden of expensive new environmental requirements that are giving a great cost-of-production advantage to foreign, government-owned producers.

Mr. Chairman, this legislation will help to restore some balance in the uneven competition between American companies and foreign governments by removing part of the glut on the market, and I urge your support of it.

That concludes my statement.

Senator HART. Thank you very much, Senator Goldwater, for, as usual, a very fine statement.

As you know, when the proposal which you are supporting came on the floor last year I opposed it for several reasons, one of which was I felt that the Stockpile Act needed modernization legislation and that a piecemeal approach to it would not solve this problem. Therefore, I had to oppose the amendment which would have provided essentially a piecemeal approach.

Now the comprehensive overhaul legislation which we have proposed to modernize the stockpile authority would not preclude the purchase of copper or even the exchange proposal here. The other question I had when this legislation came up last year was the degree to which it would in fact help the industry.

The principal sponsor, Senator Domenici, said yesterday essentially what you said here, that it would be symbolically important, that it would indicate a gesture on behalf of the Government at an attempt to do something to assist the industry. I just wanted to clarify your position and I take it is essentially the same as the principal sponsor—that this in and of itself would not substantially alter the situation in the copper industry, is that right?

Senator GOLDWATER. That is right. Of 250,000 tons, Arizona produces 1 million so it would not even have a big impact or, say, a lasting impact. I think one of the best things we could help do on this committee—I know it does not have the power—is to get the environmental people off the backs of our mines. It costs about \$3 million a stack to do what they want to do and in many cases it can't be done. We are operating with Government laws that are creating great hardships on American industry. I think probably equal to any foreign competition they are getting is our own misguided way we are going about creating a decent environment.

Senator HART. You mentioned in your testimony, I think, a figure of 15 cents a ton.

Senator GOLDWATER. Yes.

Senator HART. That is somewhat higher, I think, that Senator Domenici or one of our witnesses indicated yesterday if my recollection is accurate here. He said something about 8 cents a pound.



Senator GOLDWATER. I am referring to my own State which has 9 of the 15 biggest mines. While two of our smelters have converted to the electronic method such as was introduced in Montana, it costs about \$3 million a stack to convert the others and at the present price of copper and the cost of producing it they don't see their way too clear to accomplish it so I say 15 cents in Arizona.

Senator HART. I think the figure that was used yesterday was industrywide.

Senator GOLDWATER. That would be closer.

Senator HART. Thank you very much. We appreciate your time and your statement.

Senator GOLDWATER. Thank you.

Senator HART. Our next witness will be Mr. Simon Strauss representing the American Mining Congress.

Good morning, Mr. Strauss.

As I indicated earlier, for those who have lengthy statements we will encourage you to summarize those.

#### **STATEMENT OF SIMON STRAUSS, AMERICAN MINING CONGRESS**

Mr. STRAUSS. The text of my statement will only take about 12 minutes so I will read the statement. There are attachments to the statement.

Mr. Chairman, the American Mining Congress appreciates this opportunity to appear before you this morning to testify on pending stockpile legislation. The American Mining Congress represents the domestic producers of metals and minerals and I currently serve as chairman of its Committee on Minerals Availability.

My corporate affiliation is with ASARCO Inc. of which I am vice chairman. ASARCO is a leading producer of copper, lead, zinc, silver, and a large number of other metals and minerals. During World War II I was in Government service as an officer of the Metals Reserve Company, a corporation formed to procure strategic metals and minerals for the war effort. At the end of the war the holdings of Metals Reserve Company were turned over to the strategic stockpile under the terms of the 1946 legislation. My acquaintance with the stockpile program, therefore, goes back to its very inception.

The mining industry through the American Mining Congress has repeatedly expressed its concern over the stockpile program in previous hearings before this committee, before the Armed Services Committee of the House of Representatives and before various other congressional committees which from time to time have conducted hearings on various aspects of the stockpile program.

Our concern has centered on the frequent and often drastic revisions in the stockpile objectives established by the interagency committees of the executive branch. In a hearing before the Joint Defense Committee in November of 1976, the American Mining Congress submitted a tabulation of the changes in the stockpile objectives for the principal metals and minerals over the entire life of the national and supplemental strategic stockpiles. There have been no changes in



objectives since that date. The tabulation is, therefore, still valid and is submitted now to you once again so that it may be part of the record.

In summary, the period of intensive acquisition of materials for the stockpile occurred between the end of World War II and about the year 1960. Acquisitions since that date have been relatively minor. At the end of 1963 the then value of the materials held in the stockpile was approximately \$8 billion based on market prices then prevailing.

Since then, with large budget deficits impinging heavily on the Treasury, the Kennedy, Johnson, Nixon administrations proved unable to resist the temptation to turn these inventories into cash.

Under the terms of the 1946 legislation, absent a national emergency, sales could only be made of materials declared surplus to security needs. Between 1963 and 1973, stockpile objectives were reduced. Not strangely, the reduction in objectives have been most pronounced for those metals and minerals which were the most readily salable.

Thus, all the aluminum, copper, and nickel in the stockpile have been sold as well as most of the zinc, lead, and silver. Almost half the tin on hand in 1963 has been sold and there are plans to sell still more.

Following President Nixon's declaration that the national security would be adequately met with stockpiles equivalent to only 1 year's military requirements, Members of the Congress raised questions as to the adequacy of such limited stockpile objectives.

As a result of congressional reluctance to authorize further disposals, the Ford administration undertook a new stockpile study. The general objectives were restated in terms of 3-year emergency, including consideration of the needs of the civilian population as well as security needs.

Last fall the Carter administration reaffirmed its agreement with the general principles of the program outlined during the previous administration. The wording of that announcement is not clear as to whether this reaffirmation applies to the objectives for the individual commodities.

The history of changing stockpile objectives—sometimes also referred to as goals or targets—has been so erratic that the mining industry has concluded that congressional guidelines and greater congressional control over the stockpile program is highly desirable.

With this in mind, as we testified before the hearing this committee held last September, we supported both the so-called Bennett bill, H.R. 4895, and S. 1810 introduced by Senator McClure establishing a formula for computing stockpile requirements.

These bills, it seems to the mining industry, would go a long way toward preventing the use of the stockpiles for economic, budgetary or other political purposes. Late in the last session, Senator Domenici introduced a bill providing for the disposal of 30,000 tons of tin and the acquisition of 250,000 tons of copper. I understand Mr. Munroe of Phelps Dodge Corp. will testify particularly in regard to the Domenici bill.

The American Mining Congress supported this bill also in view of the fact that the existing Government determinations as to stockpile



objectives indicated the need to acquire large quantities of copper and to dispose of surplus amounts of tin. Mr. Royal of GSA testified in regard to this in September 1977 before your committee.

The mining industry shares the conviction of many that the strategic stockpile should not be used for economic, budgetary or other purposes not related to the national security. On the other hand, if the purchase of copper and the sale of tin meets the national security objectives of the stockpile, then under current market conditions no better time than the present could be found for these transactions.

In the statement which your chairman made in introducing S. 2575, he also referred to S. 2181, an administration bill to donate 5,000 tons of tin to the International Tin agreement's buffer stockpile. As we stated before a House committee holding hearings on this legislation last month, the mining industry would strongly prefer to see any tin released from the strategic stockpile disposed of directly to consumers in the United States.

It is our understanding that any metal contributed now to the buffer stock would, because of the prevailing market conditions in the tin market, be immediately sold by the manager of the buffer stock.

Since that is going to happen in any case we believe if such a sale is to occur, it should be handled by a U.S. agency. All other contributors to the buffer stock arrangements make their contributions in cash. If it is deemed appropriate for the United States to contribute to the buffer stock, our suggestion would be that such a contribution should also be in cash.

We turn now to S. 2575. In many respects this bill goes a long way toward meeting the views that the mining industry has expressed in the past. From an administrative point of view there certainly is much to be gained by consolidating previous stockpile legislation in a single comprehensive act, thus eliminating the existence of the three separate stockpile categories which have previously existed. These are the previous strategic and critical stockpile, the supplementary stockpile and the Defense Production Act stockpile.

The incorporation in the act of the guideline that the quantities to be stockpiled should be sufficient to sustain the Nation during an emergency extending up to 3 years represents a major step forward. If political or military conditions should change, so that a longer or shorter period appears appropriate, surely any future administration could reasonably be expected to explain to the Congress why the terms of the emergency should differ. Appropriate amendment of the act could be considered by the Congress then in existence.

We also support the concept that minor tinkering with stockpile goals should be avoided as provided in section 4(b)(4). A great many assumptions have gone into the establishment of stockpile goals in the past. These are assumptions based on expert opinion.



However, actual events often tend to disprove previous assumptions, even those made by experts. A simple example is that earlier in the stockpile program the assumption was that supplies originating in North America and the Caribbean could be depended on in the event of a future emergency.

Cuba, as a potential source of nickel, was, therefore, considered a dependable source. The events following the establishment of the Castro regime have shown that in fact the United States cannot depend on Cuban nickel.

Because of the uncertainties that surround all of these assumptions, the mining industry believes that there are strong reasons for endorsing the McClure concept of relating stockpile objectives to proven import dependence. As you know, the McClure bill did allow for deviations from a formula linked to import dependence in circumstances where such deviation appeared appropriate.

Reverting to S. 2575, the provisions of section 6 clearly underscore the continued authority of the Congress both over acquisitions and disposals of stockpile materials. The mining industry believes that this is essential to avoid serious disruption to industry. Without such congressional control the stockpiles become a "sword of Damocles" hanging over the heads of both producers and consumers of these materials.

The proposed bill makes certain recommendations with respect to stockpile management which are appropriate in most circumstances. We call to your attention that section 7(c) (3) appears to support our belief that tin from the stockpile should be sold primarily to domestic consumers since it states that "no disposal may be made from the national defense stockpile to any foreign interest."

You will recognize, I am sure, that the provisions calling for barter under section 7(d) (1) appear to be somewhat in conflict with the prior requirement that competitive bidding procedures shall be used in all cases of disposal. Some clarifying language may be needed to avoid any conflict between the competitive bidding procedures and the barter provision.

The establishment of the National Defense Stockpile Transaction Fund, provided for in section 10, is consonant in general with the legislation previously endorsed by the House, H.R. 4895, in establishing segregation of moneys received from disposal of materials so that they will be used for acquisition of materials rather than turned back to the general funds of the Treasury.

Clause (c) of section 10 does make provision whereby after the first 3 years, any excess amount in that stockpile transaction fund may be transferred to the general fund. This is apparently an effort to meet the views of some administrative agencies which have been anxious to retain control over funds resulting from stockpile disposals. In our judgment, if goals are based on a 3-year emergency, the aggregate costs



of acquisitions of materials are likely to exceed the aggregate sums realized through disposals of materials. Thus transfers to the general fund are unlikely to arise.

It is perhaps appropriate to comment that in the case of certain government corporations their funds remain segregated and do not revert to the Treasury. Were the administration of the stockpile to be in the hands of a government corporation, we presume that this would be the case with respect to the stockpile transactions.

In the past we have urged consideration of the establishment of a quasi-public corporation to administer stockpiles, comparable to the Ex-Im Bank, COMSAT and the Federal National Home Mortgage Association. Such an entity could be isolated from political influences and run in a business-like manner.

I want to make clear that these remarks should not be taken in any sense as a criticism of the General Services Administration which has handled stockpile transactions with admirable efficiency. However, a segregation of moneys received from disposal of materials so that they tion from the temptation to use the stockpile as a vehicle for economic or budgetary activities.

Furthermore, its board could encompass the various sectors affected by the stockpile, including consumers, producers, labor and the general public.

In closing we would like to express our appreciation for the thought and consideration given to this problem by your committee and its staff; 32 years of experience with the stockpile has, in our judgment, indicated that there is room for improvement in the management of the defense stockpile. We hope that out of these hearings and comparable hearings on the House side there will emerge legislation that will promote the national interest through protection of its defense-related requirements for materials.

Thank you.

[Additional information follows:]



STOCKPILE OBJECTIVES FOR SELECTED MINERALS OVER THE  
ENTIRE LIFE OF THE NATIONAL AND SUPPLEMENTAL STRATEGIC  
STOCKPILES

| <u>Commodity</u>             | <u>Date of Objective</u> | <u>Amount</u> |               |
|------------------------------|--------------------------|---------------|---------------|
| Alumina                      | October 1, 1976          | 11,532,000    | short tons    |
| Aluminum                     | November 17, 1949        | 250,000       | short tons    |
|                              | November 2, 1950         | 700,000       |               |
|                              | July 17, 1952            | 2,000,000     |               |
|                              | August 3, 1954           | 2,500,000     |               |
|                              | November 1, 1955         | 2,000,000     |               |
|                              | November 8, 1956         | 2,000,000     |               |
|                              | June 30, 1958            | 290,000       |               |
|                              | November 4, 1959         | 1,200,000     |               |
|                              | June 17, 1963            | 450,000       |               |
|                              | December 20, 1972        | 0             |               |
|                              | April 12, 1973           | 0             |               |
|                              | October 1, 1976          | 0             |               |
| Bauxite                      |                          |               |               |
| Metal Grade, Jamaica<br>type | August 3, 1954           | 2,800,000     | long dry tons |
|                              | September 29, 1954       | 2,900,000     |               |
|                              | June 30, 1958            | 2,300,000     |               |
|                              | November 4, 1959         | 2,600,000     |               |
|                              | April 10, 1964           | 5,000,000     |               |
|                              | April 12, 1973           | 4,638,000     |               |
|                              | October 1, 1976          | 523,000       |               |
| Metal Grade, Surinam<br>type | November 20, 1944        | 4,400,000     | long dry tons |
|                              | April 6, 1950            | 3,250,000     |               |
|                              | October 26, 1950         | 3,900,000     |               |
|                              | July 26, 1951            | 5,000,000     |               |
|                              | August 3, 1954           | 5,000,000     |               |
|                              | September 29, 1954       | 12,500,000    |               |
|                              | June 30, 1958            | 7,300,000     |               |
|                              | November 4, 1959         | 6,400,000     |               |
|                              | April 10, 1964           | 5,300,000     |               |
|                              | April 12, 1973           | 0             |               |
|                              | October 1, 1976          | 0             |               |
| Refractory Grade             | October 26, 1950         | 378,000       | long dry tons |
|                              | December 28, 1950        | 306,000       |               |
|                              | July 26, 1951            | 300,000       |               |
|                              | September 28, 1954       | 300,000       |               |
|                              | June 30, 1958            | 85,000        |               |
|                              | November 4, 1959         | 137,000       |               |
|                              | April 10, 1964           | 173,000       |               |
|                              | April 12, 1973           | 0             |               |
|                              | October 1, 1976          | 2,083,000     |               |



| <u>Commodity</u>   | <u>Date of Objective</u>                                                             | <u>Amount</u> |                            |
|--------------------|--------------------------------------------------------------------------------------|---------------|----------------------------|
| Chromite           |                                                                                      |               |                            |
| Chemical           | October 1, 1976                                                                      | 734,000       | short tons                 |
| Metallurgical, Ore | November 20, 1944                                                                    | 2,352,000     | short dry tons             |
|                    | December 2, 1949                                                                     | 3,584,000     |                            |
|                    | December 18, 1952                                                                    | 3,360,000     |                            |
|                    | September 29, 1954                                                                   | 6,160,000     |                            |
|                    | June 30, 1958                                                                        | 3,416,000     |                            |
|                    | December 11, 1959                                                                    | 2,700,000     |                            |
|                    | July 18, 1963                                                                        | 2,970,000     |                            |
|                    | March 27, 1964                                                                       | 2,970,000     | (amended)                  |
|                    | May 13, 1969                                                                         | 3,650,000     |                            |
|                    | March 4, 1970                                                                        | 3,100,000     |                            |
|                    | June 9, 1971                                                                         | 3,086,800     |                            |
|                    | January 16, 1973                                                                     | 2,910,550     |                            |
|                    | April 12, 1973                                                                       | 444,710       |                            |
|                    | October 1, 1976                                                                      | 2,550,000     |                            |
| Refractory         | October 1, 1976                                                                      | 642,000       | short tons<br>gross weight |
| Chromium           |                                                                                      |               |                            |
| Ferro High Carbon  | Prior to 1973, the objective was part of the<br>objective for metallurgical chromite |               |                            |
|                    | January 16, 1973                                                                     | 70,500        | short tons                 |
|                    | April 12, 1973                                                                       | 11,476        |                            |
|                    | October 1, 1976                                                                      | 236,000       |                            |
| Ferro Low Carbon   | Prior to 1973, the objective was part of the<br>objective for metallurgical chromite |               |                            |
|                    | January 16, 1973                                                                     | 70,500        | short tons                 |
|                    | April 12, 1973                                                                       | 11,476        |                            |
|                    | October 1, 1976                                                                      | 124,000       |                            |
| Ferro, Silicon     | October 1, 1976                                                                      | 69,000        | short tons                 |
| Metal              | October 1, 1976                                                                      | 10,000        | short tons                 |



| <u>Commodity</u>              | <u>Date of Objective</u> | <u>Amount</u> |                |
|-------------------------------|--------------------------|---------------|----------------|
| Copper                        | November 20, 1944        | 1,250,000     | short tons     |
|                               | June 22, 1950            | 1,250,000     |                |
|                               | October 26, 1950         | 2,100,000     |                |
|                               | September 5, 1952        | 1,100,000     |                |
|                               | August 31, 1954          | 1,600,000     |                |
|                               | September 28, 1954       | 3,500,000     |                |
|                               | June 30, 1958            | 1,900,000     |                |
|                               | March 18, 1959           | 1,000,000     |                |
|                               | June 17, 1963            | 775,000       |                |
|                               | March 13, 1964           | 775,000       |                |
|                               | April 12, 1973           | 0             |                |
| October 1, 1976               | 1,299,000                |               |                |
| Lead                          | November 20, 1944        | 1,100,000     | short tons     |
|                               | June 1, 1950             | 515,000       |                |
|                               | November 9, 1950         | 700,000       |                |
|                               | February 24, 1953        | 700,000       |                |
|                               | September 28, 1954       | 1,130,000     |                |
|                               | October 26, 1954         | 1,130,000     |                |
|                               | November 8, 1956         | 1,154,000     |                |
|                               | May 3, 1957              | 1,154,000     |                |
|                               | June 30, 1958            | 286,000       |                |
|                               | June 17, 1963            | 0             |                |
|                               | December 3, 1969         | 530,000       |                |
|                               | April 12, 1973           | 65,100        |                |
|                               | October 1, 1976          | 865,000       |                |
| Manganese                     |                          |               |                |
| Battery Grade, Natural<br>Ore | November 20, 1944        | 168,000       | short dry tons |
|                               | February 1, 1951         | 257,600       |                |
|                               | July 12, 1951            | 203,840       |                |
|                               | November 8, 1951         | 190,400       |                |
|                               | September 28, 1954       | 375,917       |                |
|                               | October 26, 1954         | 144,480       |                |
|                               | June 30, 1958            | 82,320        |                |
|                               | July 1, 1959             | 50,000        |                |
|                               | February 3, 1964         | 60,000        |                |
|                               | March 13, 1964           | 80,000        |                |
|                               | May 13, 1969             | 135,000       |                |
|                               | April 12, 1973           | 10,700        |                |
|                               | October 1, 1976          | 12,736        |                |



| <u>Commodity</u>                    | <u>Date of Objective</u>      | <u>Amount</u> |                |
|-------------------------------------|-------------------------------|---------------|----------------|
| <b>Manganese</b>                    |                               |               |                |
| Battery Grade, Synthetic<br>Dioxide | October 26, 1954              | 29,120        | short dry tons |
|                                     | June 30, 1958                 | 12,768        |                |
|                                     | July 1, 1959                  | 20,000        |                |
|                                     | March 13, 1964                | 6,700         |                |
|                                     | March 27, 1969                | 1,900         |                |
|                                     | April 12, 1973                | 0             |                |
|                                     | October 1, 1976               | 19,105        |                |
| Chemical Grade-Type A               | January 26, 1950              | 17,248        | short dry tons |
|                                     | October 26, 1950              | 57,120        |                |
|                                     | July 12, 1951                 | 30,240        |                |
|                                     | June 19, 1952                 | 25,760        |                |
|                                     | September 28, 1954            | 63,314        |                |
|                                     | January 18, 1955              | 47,040        |                |
|                                     | June 30, 1958                 | 28,000        |                |
|                                     | July 1, 1959                  | 30,000        |                |
|                                     | April 2, 1964                 | 68,500        |                |
|                                     | May 13, 1969                  | 35,000        |                |
|                                     | April 12, 1973                | 12,800        |                |
|                                     | October 1, 1976               | 247,136       |                |
|                                     | (combined total - Type A & B) |               |                |
| Chemical Grade-Type B               | June 19, 1952                 | 15,680        | short dry tons |
|                                     | January 18, 1955              | 40,320        |                |
|                                     | June 30, 1958                 | 24,640        |                |
|                                     | July 1, 1959                  | 53,000        |                |
|                                     | April 2, 1964                 | 64,000        |                |
|                                     | May 13, 1969                  | 35,000        |                |
|                                     | April 12, 1973                | 12,800        |                |
|                                     | October 1, 1976               | 247,136       |                |
|                                     | (combined total - Type A & B) |               |                |
| Electrolytic Metal                  | January 16, 1973              | 9,000         | short tons     |
|                                     | April 12, 1973                | 4,750         |                |
|                                     | October 1, 1976               | 15,000        |                |
| Ferro High Carbon                   | January 16, 1973              | 600,000       | short tons     |
|                                     | April 12, 1973                | 200,000       |                |
|                                     | October 1, 1976               | 439,000       |                |
| Ferro Low Carbon                    | October 1, 1976               | 0             |                |



| <u>Commodity</u>    | <u>Date of Objective</u> | <u>Amount</u> |                |
|---------------------|--------------------------|---------------|----------------|
| <b>Manganese</b>    |                          |               |                |
| Ferro Medium Carbon | January 16, 1973         | 36,000        | short tons     |
|                     | April 12, 1973           | 10,500        |                |
|                     | October 1, 1976          | 99,000        |                |
| Metallurgical       | November 20, 1944        | 5,264,000     | short dry tons |
|                     | December 2, 1949         | 5,600,000     |                |
|                     | July 12, 1951            | 5,600,000     |                |
|                     | October 11, 1951         | 5,600,000     |                |
|                     | July 17, 1952            | 5,600,000     |                |
|                     | August 31, 1954          | 8,848,000     |                |
|                     | June 30, 1958            | 5,376,000     |                |
|                     | October 16, 1959         | 6,800,000     |                |
|                     | February 13, 1964        | 7,900,000     |                |
|                     | March 13, 1964           | 7,900,000     |                |
|                     | May 1, 1964              | 7,900,000     | (amended)      |
|                     | May 13, 1969             | 4,000,000     |                |
|                     | April 12, 1973           | 750,500       |                |
|                     | October 1, 1976          | 2,052,000     | short tons     |
| Ferro Silicon       | January 16, 1973         | 45,500        | short tons     |
|                     | April 12, 1973           | 15,900        |                |
|                     | October 1, 1976          | 81,000        |                |
| Nickel              | November 20, 1944        | 118,000       | short tons     |
|                     | July 27, 1950            | 274,000       |                |
|                     | November 9, 1950         | 290,000       |                |
|                     | October 9, 1952          | 450,000       |                |
|                     | September 28, 1954       | 450,000       |                |
|                     | February 8, 1955         | 337,500       |                |
|                     | June 30, 1958            | 161,500       |                |
|                     | July 18, 1963            | 50,000        |                |
|                     | January 13, 1967         | 20,000        |                |
|                     | March 13, 1969           | 55,000        |                |
|                     | February 9, 1971         | 0             |                |
|                     | April 12, 1973           | 0             |                |
|                     | October 1, 1976          | 204,335       |                |



| <u>Commodity</u> | <u>Date of Objective</u> | <u>Amount</u> |             |
|------------------|--------------------------|---------------|-------------|
| Platinum Group   |                          |               |             |
| Iridium          | November 20, 1944        | 5,000         | troy ounces |
|                  | July 20, 1951            | 13,000        |             |
|                  | September 28, 1954       | 13,000        |             |
|                  | May 16, 1956             | 4,500         |             |
|                  | November 8, 1956         | 4,500         |             |
|                  | June 30, 1958            | 1,500         |             |
|                  | February 16, 1960        | 4,000         |             |
|                  | April 2, 1964            | 17,000        |             |
|                  | April 12, 1973           | 1,800         |             |
|                  | October 1, 1976          | 97,761        |             |
| Palladium        | May 16, 1956             | 475,000       | troy ounces |
|                  | June 30, 1958            | 330,000       |             |
|                  | February 16, 1960        | 340,000       |             |
|                  | April 2, 1964            | 1,300,000     |             |
|                  | January 9, 1973          | 510,000       |             |
|                  | April 12, 1973           | 328,500       |             |
|                  | October 1, 1976          | 2,450,000     |             |
| Platinum         | November 20, 1944        | 275,000       | troy ounces |
|                  | November 2, 1950         | 590,000       |             |
|                  | August 2, 1951           | 790,000       |             |
|                  | September 28, 1954       | 879,750       |             |
|                  | May 16, 1956             | 235,000       |             |
|                  | November 8, 1956         | 235,000       |             |
|                  | June 30, 1958            | 154,000       |             |
|                  | February 16, 1960        | 165,000       |             |
|                  | April 2, 1964            | 450,000       |             |
|                  | January 5, 1967          | 335,000       |             |
|                  | May 13, 1969             | 555,000       |             |
|                  | April 12, 1973           | 187,500       |             |
|                  | October 1, 1976          | 1,314,000     |             |
| Silver           | June 3, 1965             | 165,000,000   | troy ounces |
|                  | March 4, 1970            | 139,500,000   |             |
|                  | April 12, 1973           | 21,663,000    |             |
|                  | October 1, 1976          | 0             |             |



| <u>Commodity</u>      | <u>Date of Objective</u> | <u>Amount</u> |           |
|-----------------------|--------------------------|---------------|-----------|
| Tin                   | November 20, 1944        | 210,000       | long tons |
|                       | December 2, 1949         | 260,000       |           |
|                       | January 26, 1950         | 285,000       |           |
|                       | November 30, 1950        | 350,000       |           |
|                       | June 28, 1951            | 245,000       |           |
|                       | September 28, 1954       | 308,000       |           |
|                       | March 22, 1955           | 341,000       |           |
|                       | June 30, 1958            | 198,000       |           |
|                       | July 7, 1960             | 185,000       |           |
|                       | May 20, 1963             | 200,000       |           |
|                       | July 26, 1963            | 200,000       |           |
|                       | March 27, 1969           | 232,000       |           |
|                       | April 12, 1973           | 40,500        |           |
|                       | October 1, 1976          | 32,499        |           |
| <br>Tungsten          |                          |               |           |
| Ores and Concentrates | November 20, 1944        | 36,000,000    | pounds    |
|                       | February 18, 1949        | 85,000,000    |           |
|                       | July 20, 1950            | 114,000,000   |           |
|                       | November 30, 1950        | 146,000,000   |           |
|                       | January 7, 1953          | 140,000,000   |           |
|                       | September 29, 1954       | 94,000,000    |           |
|                       | June 30, 1958            | 49,200,000    |           |
|                       | November 4, 1959         | 50,000,000    |           |
|                       | April 2, 1964            | 44,000,000    |           |
|                       | March 4, 1970            | 60,000,000    |           |
|                       | April 12, 1973           | 4,234,000     |           |
|                       | October 1, 1976          | 8,823,000     |           |
| Carbide Powder        | October 1, 1976          | 12,845,000    | pounds    |
| Ferro                 | October 1, 1976          | 17,769,900    | pounds    |
| Metal Powder          | October 1, 1976          | 3,290,000     | pounds    |



| <u>Commodity</u> | <u>Date of Objective</u> | <u>Amount</u> |            |
|------------------|--------------------------|---------------|------------|
| Zinc             | November 20, 1944        | 1,500,000     | short tons |
|                  | July 6, 1950             | 1,500,000     |            |
|                  | December 7, 1950         | 1,500,000     |            |
|                  | January 4, 1951          | 780,000       |            |
|                  | July 12, 1951            | 740,000       |            |
|                  | October 16, 1952         | 740,000       |            |
|                  | April 30, 1953           | 740,000       |            |
|                  | August 3, 1954           | 1,100,000     |            |
|                  | November 8, 1956         | 1,250,000     |            |
|                  | May 3, 1957              | 1,250,000     |            |
|                  | March 20, 1958           | 1,256,000     |            |
|                  | June 30, 1958            | 178,000       |            |
|                  | June 17, 1963            | 0             |            |
|                  | December 3, 1969         | 560,000       |            |
|                  | April 12, 1973           | 202,700       |            |
|                  | June 15, 1976            | 374,830       |            |
|                  | October 1, 1976          | 1,313,000     |            |

11/2/76



Senator HART. Thank you, Mr. Strauss. You have, as usual, stated your views and those of the Mining Congress extremely forcefully and clearly.

Let me ask you one or two questions. Do you have any comments on S. 2635 which is the administration's bill to dispose of 11 different materials?

Mr. STRAUSS. Yes. I have not actually seen the bill as yet, Senator, but I have through the press become aware in general of its provisions. For example, it provides for a release of 25,000 tons of tin and I assume that this plus the 5,000 tons which the administration is proposing should be given to the International Tin Agreement amounting to a total of 30,000 tons. The total is, therefore, consonant with the provisions of the Domenici bill. We would endorse this tin disposal even though we believe the present tin stockpile objective of only 32,000 tons is inadequate in terms of this country's total dependence on imports.

Nevertheless, we also agree that 200,000 tons is probably in excess of a proper objective and would see no reason to oppose the release of 30,000 tons. As I indicated in this testimony we prefer to see all of that sold to domestic consumers rather than to have 5,000 tons set aside for the International Tin Agreement.

So with regard to tin I would say that we are supportive.

With regard to silver, which is the other item that is of substantial importance in monetary terms to the proposed legislation, we have great reservations. The members of the Armed Services Committee perhaps are aware of the fact that in the development of the cruise missile the use of a silver battery has been considered the most desirable form of providing energy for that missile.

However, less than a year ago statements were put out by the Defense Department indicating that because of the concern over the availability of silver they were not sure they were going to use the silver battery for the cruise missile. Their estimated requirements for silver for this program are about 200 million ounces. It strikes us as strange that on the one hand the Government says that it would have a more effective weapon if it were powered with a silver battery but that an ample supply of silver is not assumed and on the other hand the Government says it does not need a silver stockpile. There is something wrong with that.

Under the provisions of S. 1810 there would in fact be a stockpile objective for silver. My own experiences during World War II indicate to me very definitely that silver was of major importance in fighting World War II. There have been no technical developments that I am aware of that have lessened these defense requirements for silver. To the contrary in the battery field it indicates that there is more need for silver now than in the past.

Therefore, I feel that before any release of silver in the amount proposed in this bill—which is roughly half of the amount now in the stockpile—the matter ought to be looked at with great care and caution by the Congress.

I think the administration should be questioned particularly on this matter of the cruise missile. That is, whether or not in fact we are giving up some efficiency in that important weapon because of an alleged



shortage of silver on the one hand and on the other hand we are putting silver into the market.

Some of the other materials are proposed to be sold—antimony and bismuth. Today due to market conditions sales of either antimony or bismuth would be extremely disruptive. We agree that the stockpile should not be looked at from an economic standpoint. The significance of antimony as a military item has probably diminished over the years because of technical developments and disposal of that antimony should be undertaken, but whether this is an appropriate time to sell it I am not so sure. I would raise real questions about doing that at this time.

Now I know that the members of the General Services Administration have repeatedly expressed their intention to operate in such a manner as not to disrupt the market and the legislation, of course, specifies that they should not do so. However, realistically every transaction, whether a purchase or a sale, has an effect on the market. There is no way you can have an immaculate conception, if I may use that phrase, in regard to stockpile transactions. They are bound to affect the market in one way or the other and I would simply say that this is not an appropriate time in my judgment to be selling either bismuth or antimony.

There will be times in the future when perhaps such sales would be appropriate.

There was also a sizeable item with respect to industrial diamonds as I recall it. On that I would point out that I think you have to bear in mind that substantially all of our diamond supplies come from Africa, from the very areas that are now involved in political and military developments. These are causing so much concern that the continued supply of diamonds to the U.S. market from such places as Zaire, the Union of South Africa, and Namibia, is not assured. There are big uncertainties about this, and here, again, I ask is this the right time to be selling industrial diamonds, of which we have no production whatever in the United States.

So my answer is a mixed bag. I think the tin disposal is warranted and would be helpful. I think the silver and diamond transactions need to be looked at very carefully in light of the current situation and that bismuth and antimony would seem inappropriate because of prevailing market conditions.

Senator HART. We did go into the question on silver in executive session which we held yesterday with the administration witnesses, particularly the Defense Department witnesses. Unless I am factually incorrect, I think the missile technology or the weapon system technology where that is most crucial relates more to the MX than to the cruise.

Mr. STRAUSS. Yes.

Senator HART. Your concern is well placed and I think it is a concern that is shared and we do intend to pursue that with the Defense officials.

Mr. STRAUSS. Very good.

Senator HART. You mentioned on the bottom of page 7 of your testimony that you support, as you did before, the McClure concept of relating stockpile objectives to proven import dependence. In addition to your testimony I think you are generally supportive of the



reform proposal which I offered. Do you find those two to be compatible; that is to say, can the McClure concept be inserted into the S. 2575 framework, do you think?

Mr. STRAUSS. I think so. The real problem, Senator, will center mostly on a relatively small number of commodities and particularly the low volume commodities that have very specific defense applications perhaps or that have no specific defense application where our import dependence is not a measure of their true security strategic requirements. However, when you consider the large volume commodities, if we have an import dependence it is a pretty good measure of how dependent we would be in the event of a war. The simple reason is that constraints of manpower, of manufacturing capacity in this country and other limitations make it impossible for us to use two or three times as much of a given large volume material in wartime as we do in peacetime. It just can't be accomplished.

For example, I know that aluminum has very many highly significant wartime applications. One could say that in wartime our requirements for aluminum will rise very sharply. Yet we will find we simply don't have the men, the energy supply or the fabricating capacity to convert a much larger quantity of aluminum in wartime than we do in peacetime.

What will happen is what happened in World War II—not for reasons of lack of supply but because of manpower restrictions. A large-scale war may make it impossible, for example, to manufacture perhaps passenger vehicles. This happened in World War II.

So I feel that the McClure formula does have a real advantage and I see no great incompatibility between S. 2575 and the McClure bill. The McClure bill simply goes a step further than S. 2575 in setting up guidelines requiring that import dependency shall be given heavy weight except where it is not deemed appropriate by the administration.

Then they have got to spell out why it is not appropriate.

Senator HART. We would welcome your comments further on stockpile goals so long as the record is open and particularly reviewing the other commodities materials that the administration is proposing.

Mr. STRAUSS. Yes. As indicated, Senator, it was not clear to me from the statement that was issued last fall in which it was declared that the Carter administration reaffirmed the general program as set out in the previous year under the Ford administration. It was not clear to me whether that represented an endorsement of the Ford individual stockpile goals or whether it simply referred to the overall principles. I have read the statement several times and it can be interpreted either way and I have had no clarification of it.

Now if the stockpile goals are still specifically those set out by the Ford administration in 1976, then we would have some comments on some of the specifics.

Senator HART. I welcome back Senator Hatfield from Montana.

Senator, do you have any questions of Mr. Strauss.

Senator HATFIELD. No; not at this time. Thank you.

Senator HART. Thank you very much, Mr. Strauss.

Mr. STRAUSS. Thank you.

[Subsequent to the hearing the following letter was received from Mr. Simon D. Strauss:]



AMERICAN MINING CONGRESS,  
Washington, D.C., March 14, 1978.

HON. GARY HART,  
*Chairman, Subcommittee on Military Construction and Stockpiles,  
Committee on Armed Services,  
U.S. Senate,  
Washington, D.C.*

DEAR MR. CHAIRMAN: At the time of my appearance before your Subcommittee on Thursday, March 9, you indicated that witnesses would be permitted to submit supplementary information in regard to pending legislation on stockpiling.

Following my testimony before the Subcommittee, Senator Dennis DeConcini and Representative Morris Udall appeared before you to announce that they were introducing new legislation authorizing the disposal of tin and the purchase of copper for the national stockpile. I was not aware of this pending legislation at the time I made my statement on behalf of the American Mining Congress.

Apparently the DeConcini-Udall proposal has the endorsement of the Carter Administration, as in fact Mr. Royal of the General Services Administration indicated later. Under the circumstances, it seems appropriate on behalf of the American Mining Congress to express our views with respect to the DeConcini-Udall proposal.

The mining industry is grateful to the Arizona congressional delegation for having pursued this subject in discussions with Administration spokesmen. We believe that their representations to alert the Administration to the dire plight of the copper industry and to the fortuitous circumstance that the government's stockpile program can be properly used as a vehicle for ameliorating the industry's present situation, without violating the principle that the strategic stockpile should be used for strategic purposes only. We believe, therefore, that progress is being made toward meeting the country's strategic goals.

However, we feel constrained to point out several respects in which the proposed legislation requires careful examination by your Committee and the Committee on the House side.

The DeConcini-Udall bill provides that proceeds from the sale of the first 5,000 long tons of tin in fiscal 1978 and from the sale of the first 10,000 long tons of tin sold in fiscal 1979 shall be covered into the Treasury as miscellaneous receipts. This provision is at odds with H.R. 4895, introduced last year by Rep. Charles Bennett, and with S. 2575, both of which provide that the proceeds of sales from disposal of stockpile surpluses shall be earmarked for subsequent stockpile acquisitions. As you know, the American Mining Congress believes that one of the prime incentives to misuse of the strategic stockpile has been the desire to raise funds for budgetary purposes.

A second problem arises from the increase in the quantity of tin to be disposed to a total of 45,000 tons as compared with the previous figure of 30,000 tons embodied in the Domenici bill, S. 2167. In our judgment this increase in the quantity of tin to be sold will create opposition on the part of the tin producing countries. While the tin exporting countries have agreed that some disposal of tin is desirable to prevent a runaway price situation, to date the discussion has been limited to the maximum of 30,000 tons. A 50 percent increase in the quantity authorized for disposal is likely to bring about pressure on the State Department. We recognize that disposal authority is not necessarily used. However, if as a result of opposition by tin producers, sales are limited to a smaller figure—say, 30,000 tons—and if the proceeds of the first 15,000 tons sold are earmarked for the Treasury rather than for new stockpile purchases, then it is unlikely that the government will have at its disposal a sufficient sum of money to obtain the quantity of copper of “up to 225,000 short tons” embodied in the bill.

In fact, it would eliminate disruption of the market if the quantities were made specific rather than indefinite. This could be accomplished by eliminating the phrase “up to” both with respect to disposal of the tin and acquisition of the copper.

The legislation also provides for proceeds from the sale of tungsten to be used in the purchase of copper but this only applies to sales of tungsten in excess of 3,000,000 pounds in each fiscal year.

We hope that in considering the various proposals before your Committee, the Members will take into account these observations. We would appreciate it very much if you would make this letter a part of the March 8 and 9 hearing record on pending stockpile legislation.



Thank you for your courtesy at the time of my appearance before your Committee and for your attention to this communication.

Sincerely yours,

SIMON D. STRAUSS, *Chairman.*

Senator HART. We would next like to hear from Mr. George Munroe representing Phelps Dodge.

Mr. Munroe, welcome.

# STATEMENT OF GEORGE B. MONROE, CHAIRMAN OF THE BOARD, PHELPS DODGE

Mr. MUNROE. Thank you, Senator.

Mr. Chairman, I very much appreciate this opportunity to appear here this morning. I will try to be brief.

I am George Munroe, chairman of the board of Phelps Dodge Corp., which is the country's second largest producer of copper.

I am here today to express my company's support, and my own, for S. 2167, a bill introduced by Senator Domenici, of New Mexico, which would direct the Administrator of General Services to sell 30,000 tons of tin from the national stockpile and to purchase, with the proceeds, up to 250,000 tons of copper for the stockpile.

The subcommittee, I am aware, also has other bills under consideration at this hearing, three of which—S. 2575, S. 1810, and H.R. 4895—represent proposals for substantive changes in the stockpiling laws, intended to update that legislation and to improve the stockpile's protection from attempts to use it for purposes other than national security. These are important efforts; there can be little doubt that some past administrations have used the stockpile for economic reasons unrelated to its important strategic purpose.

We at Phelps Dodge have always been uneasy about the stockpile's potential for misuse, because of the harm such misuse can cause in manipulating materials markets, and commend the subcommittee for tackling this problem. Its satisfactory solution will be far more complex than the rather simple bill I am here today to support, and I will accordingly be brief.

There are at present only 20,433 tons of copper in the stockpile against a goal of 1,299,000 tons. On the other hand, there are 202,842 tons of tin in the stockpile, but the tin goal is only 32,499 tons which, as Mr. Strauss indicated, does seem low—but certainly the 202,000 is high.

S. 2167 would provide a very significant step toward moderating both of these imbalances, and such a step at this time would benefit, rather than disrupt, the markets for both metals. Moreover, because tin is now selling at near its historical high and because copper is selling at what I most fervently trust is its lowest price, reflecting the depressed state of the international copper-producing industry, the exchange would permit the GSA and the taxpayer the rare opportunity to observe and benefit from the maxim, "buy low, sell high."

A major purchase of copper for the stockpile at this time would also, I believe, do as much to improve the health of the Nation's copper-producing industry as can be accomplished by any single Government action. It is true, and properly so, that the stockpile is not intended for economic use beyond that of national security, and I am



not here to advocate that it should be so used now. I would, however, like to address a few remarks to that point.

First, both the present administration and the past one have found that for defense reasons a very substantial amount of copper should be in the stockpile, and the copper markets are currently in a position to offer GSA a meaningful start toward its goal at prices which are highly favorable. That the domestic industry would thereby also be aided might, therefore, be viewed as an added, although highly important, benefit, because the purchase is warranted on its own merits.

However, it should be remembered that there are two express congressional purposes stated in the present Strategic and Critical Materials Stock Piling Act. The first, of course, is to acquire and maintain a stockpile of these materials. The second purpose of the act is:

\* \* \* to encourage the conservation and development of these materials within the United States, and thereby decrease and prevent wherever possible a dangerous and costly dependence of the United States upon foreign nations for supplies of these materials in times of national emergency. (50 U.S.C. 98.)

That, I submit, is not only a very wise policy, but one which is clearly appropriate in this instance with respect to the domestic copper industry.

The U.S. copper industry has long been the greater in the world—its mine production capacity is 25 percent of free world capacity, and is adequate to make the Nation substantially self-sufficient in this key metal. Yet, today, despite the general health of the U.S. economy, the domestic copper industry is in a depression unequaled since the 1930's. Demand for copper in this country has been strong, but domestic producers, caught between costs which have sharply risen and prices which have sharply fallen, have been unable to benefit from it.

The price currently charged by most domestic producers, 61.5 cents per pound in almost all instances, is below the cost of most domestic copper mining operations, and even the lowest cost producers are hard pressed to break even.

As a result, very substantial damage is being sustained by the industry. The financial positions of virtually all U.S. copper producers are weakening, production has been curtailed, a number of mines have been totally closed, and several thousand copper miners have been laid off.

The situation may well result in permanent injury to a large part of the domestic copper industry, and the second stated purpose of the Stock Pile Act would appear most properly called into action.

This is especially appropriate because the cause of this depression is one for which the stockpile can uniquely offer a cure—the excess world inventories accumulated in the 1974-75 recession, when something over 1 million tons of copper were added to normal inventory requirements.

As Senator Goldwater pointed out, the situation has been compounded by the continuing failure of a number of the principal foreign sources of copper to limit production in line with demand of their traditional markets in Europe and Japan.

Some 40 percent of free world copper capacity is now owned, or effectively controlled, by the governments of less developed countries which have felt compelled by foreign exchange requirements and local



political needs to maximize output regardless of the supply-demand balance.

Copper is basically an international commodity, and can move freely in trade throughout the world for relatively little cost. The tariff on copper entering this country is minimal—0.8 cents per pound. Accordingly, although U.S. mines operated in 1977 at an estimated 77 percent of capacity, including strike losses, the world inventory surplus remained virtually unchanged, as the foreign mines, operating at over 90 percent of capacity, moved their copper into the shortfall rather than permit the excess inventories to be worked down.

Foreign copper accounted for roughly 20 percent of the U.S. market for refined copper in 1976 and 1977, compared to an historical average of about half that.

I should briefly note that in addition to the damage being inflicted on the domestic copper-producing industry and its employees, other important and strategic U.S. interests are threatened by the present copper prices. A number of the principal LDC copper producers, such as Zambia, Zaire, and Peru, are among this country's best friends in the Third World, and are encountering extreme economic and financial problems stemming from the exceedingly low prices of copper.

Some are now very near to national bankruptcy and are threatened with default on their international loan obligations. The relief which S. 2167 would provide these hard-pressed developing nations would clearly be in the interest of U.S. foreign policy and the overall well-being of the international economic and financial system.

I also want to emphasize that the problem, although at present severe, ought not to be a permanent one. World use of copper continues to grow and in time the excess copper will be consumed. But permitting the situation to cure over time, by slow erosion of the excess inventories, can have permanent adverse consequences for at least some domestic producers and their employees, and on a number of LDC producers as well.

This damage can probably be avoided if the U.S. Government accelerates its plans to replenish its strategic stockpile by purchases of copper. S. 2167 offers the chance to make a significant start, under conditions most favorable to the taxpayer and the budget, with no new funding needed.

I know little of the tin market, but I understand that both producers and consumers of tin support S. 2167, because of the tin it would make available to badly strained markets. It is hard to envision a bill that can at once produce so many positive effects, and so few negative. The only criticism of the bill of which I am aware has been to the effect that mandating a copper purchase could require a deviation from stockpile purchasing priorities, which may—I believe they are classified—emphasize materials on which import reliance is greater.

I offer three observations in defense of the bill against this criticism.

First, copper is badly needed in the stockpile and in any market transaction there are, ideally, a time and price when a purchase can be most profitably made; for copper, that time is now and the price is right.

Second, the stated stockpile copper goal is so great—1,299,000 tons—that it could not be filled in its entirety without great difficulty in even today's depressed market and despite record excess copper stocks; ac-



cordingly, it must be viewed as a multiyear project, in which a timely start, taking into account today's most favorable conditions, can well justify a departure from more restrictive policies.

Third, I refer again to the second express purpose of the Strategic and Critical Materials Stock Piling Act:

\* \* \* to encourage development of these materials within the United States, and thereby \* \* \* prevent wherever possible \* \* \* a dangerous and costly dependence \* \* \* upon foreign nations \* \* \*."

The U.S. copper industry, which has served our Nation well in supplying a vital strategic material from domestic sources, is now in serious trouble, from which it may not emerge without severe damage. I believe that S. 2167, if enacted, would provide an immediate and hopefully lasting remedy for that trouble, and I recommend its passage most strongly.

For all its importance, however, it remains a very simple piece of legislation, and your subcommittee, Mr. Chairman, has simultaneously before it bills that are much more complex.

The revision of basic stockpile law to prevent administrative abuse, and yet retain the flexibility that it must have to accommodate changing security requirements, is very important and will be very difficult. S. 2167, on the other hand, appears wholly compatible with any of the three principal approaches currently before you, S. 2575, S. 1810, and H.R. 4895, and I, therefore, respectfully urge the subcommittee to act favorably and separately on it, and to report it before turning to these other and legislatively much more difficult matters.

Mr. Chairman, that is the end of my prepared statement. I would like to add one comment relative to the exchange between you and Senator Goldwater earlier. My view is not that if the Government were to take the action that I have just recommended it would be in a sense merely symbolic. I am much more hopeful that it would have a substantial impact on the problems besetting the copper industry today and one which would make a material contribution, and a fairly good contribution, to relieve this sorely beset industry.

Psychology and trends are very important in a market such as copper, and when inventories continue to build and prices continue to drop, people who use copper don't buy it; but once they see a change in the trend—a drop in the inventories and perhaps a little pickup in the price, there is much more inclination on their part to maybe buy some for themselves. So I am hopeful that this could have a real impact.

Senator HART. Thank you, Mr. Monroe. That was my principal question.

I noted in the middle of page 2 you said that:

A major purchase of copper for the stockpile at this time would also, I believe do as much to improve the health of the Nation's copper producing industry as can be accomplished by any single government action.

Then on page 4 you use the phrase offer a cure.

Then at the bottom of page 6 you say that—

S. 2167, if enacted, would provide an immediate and hopefully lasting remedy.

Those are stronger statements I think than any of the other advocates of this measure have made. My principal question was the



one to which you have just addressed yourself and I might invite you really to expand on that a little bit as to how that psychology does work, what the purchase of 250,000 tons would do in a glutted market such as we have now.

Mr. MONROE. Yes, I would be glad to expand on that a little. The basic problem we are faced with today, Senator, arose during the recession in 1974 and 1975 when the demand for—really I have to go back to 1973 and 1974, when demand was exaggerated on the up side. We had a lot of talk emanating from the Club of Rome and similar type thinking that we were running out of a lot of basic materials and there seemed to be at least temporary scarcities and shortages around. Price controls were on, as you recall, in this country and there was quite an inventory scramble by users to build up their stocks of copper and lots of other things and this caused a very sharp runup of price, and apparent scarcities.

Then once it became clear that these fears had been grossly exaggerated, there was a long period which followed when people essentially lived off of inventory and the demand for copper and other materials dropped off sharply in 1974 and through the recession of 1975, and during that period a very substantial excess inventory of copper accumulated around the world of roughly 1 million tons excess, or double the normal stocks.

Now since that time demand has recovered and in 1976, and again last year, there was a substantial balance between production and consumption. There was a slight continuing buildup in each year, but essentially the problem remains this million tons, which built up in the earlier period. It is not an ongoing buildup at this point partly because some U.S. production has been shut down, of course. So it seems to me that the main problem which impacts on the industry is this excess tonnage overhanging the market, and I think the announcement by the Government that it was undertaking in a credible manner a purchase of substantial tonnage, such as 250,000 tons, would have a sharp impact on the market.

I don't know whether you have noticed but in the last couple of days the market has strengthened noticeably, possibly based on speculation about these hearings.

Senator HART. One certainly hopes not. [Laughter.]

The other thing that struck me about your statement was the absence of criticism of impact or the role the environmental legislation has played in this economic picture. Now as an advocate of strong but hopefully reasonable environmental controls, that interested me. You talked about the cost price squeeze on page 3 of your statement. Could you comment on your own experience the degree to which the environmental quality control have in fact contributed to that?

Mr. MUNROE. I would be delighted to do so.

They have contributed very materially.

Senator HART. I was afraid you were going to say that.

Mr. MUNROE. As to the cost squeeze: Various figures have been advanced, I think the bulk of them ranging between 10 and 15 cents a pound in additional costs imposed on domestic production primarily from environmental requirements, and those primarily through controls we have had to put on the copper smelters.



My own company has just run a figure, which includes only actual operating costs, amortization of capital costs and interest, which came out about 10 cents a pound but did not include added costs we have incurred by having to shut the smelters down occasionally to maintain standards, which both reduced our throughput and increased the cost of operating the smelter. So it is something over 10 cents for us and I think the 10 to 15 cent figures used can be validated.

Now in terms of our foreign competitors, we regard Chile as probably the most efficient producer, at least as a general statement; there may be individual mines that are lower. To the best of our knowledge the difference between Phelps Dodge's cost of producing and the average cost of Chilean production is essentially that 10 to 15 cents environmental cost.

So we feel that though we have lower grade ores we have other advantages in this country which would enable us to compete head to head with foreign competition were it not for these special burdens that are imposed on us and are not imposed on most of our foreign competition.

Senator HART. How much of that is eaten up by transportation cost in this market?

Mr. MUNROE. I don't know if I could put a cents per pound figure on it. Transportation is not too high when you get close to tidewater.

Senator HART. One other question on the demand side. Your statement talks about in time that excess supply will be consumed. Could you comment just on the trends in copper demand particularly in relation to new technologies, fiber optics and things of that sort?

Mr. MUNROE. Yes. Over the period since World War II the demand for copper in the non-Communist world has grown roughly 4 percent a year on average. Not every year is an average year, of course. I would expect that perhaps that growth rate will be somewhat lower in future due to rising energy costs and other limitations on industrial development, including environmental restraints.

However, I think that the use of copper clearly will continue to grow. If you want to use 3 percent, that would seem to me as good a horseback estimate as any. Three percent a year is over 200,000 tons of additional copper capacity needed a year, since our current consumption is 7½ million tons worldwide.

With not a great excess of productive capacity now, at some point it seems to me that quite clearly the demand will require new facilities to be brought into being and at that point, if a decision to invest is based on investment criteria, the price will have to improve to justify it, and improve substantially.

I might just mention, if I may there, Senator, we are somewhat concerned with the possibility that there may be premature development of new capacity abroad, perhaps aided by U.S. Government financing agencies or institutions like the World Bank. I know there is a lot of talk—again in my opinion generated out of the 1973-74 period—about incipient shortages, and there are programs in OPIC and the World Bank to try and stimulate development of productive capacity abroad, particularly in the LDCs, and I have no objection to this in the long term, but I certainly would deplore premature panicking over shortages until we can see some kind of abatement of the current glut.



Senator HART. Your demand projections do calculate new trends in new technology and so forth.

Mr. MUNROE. Well, as best we can. There are many, many fronts on which copper is competing with other materials. Fiber optics has had a great deal of publicity. We do not regard it as a major tonnage threat to copper, which I could explain. Both of us are nontechnical people, I think; I could probably explain to you what I understand about it, but it might not be too valid, except I think there are limitations on the usages of that particular item, which would be used in some areas but not in the main copper using areas.

Senator HART. Did your company or any of the other principal domestic producers operate internationally?

Mr. MUNROE. Yes. A number of the U.S. copper producers have some interest in copper mines abroad. Of course, that is a good deal less than it was before the Chilean nationalization of Kennecott and Anaconda. The production at those foreign mines in which U.S. companies have a voice has been curtailed in areas such as Canada, South Africa, and Australia where the companies still control what is done.

In cases such as Zambia and Peru, where there are major interests, the government is really controlling policy there.

Senator HART. That is where the international problem is located?

Mr. MUNROE. Well, the four principal LDC's—Chile, Zambia, Zaire, and Peru, in that order.

Senator HART. And they share the bulk of the production in that order.

Mr. MUNROE. Yes.

Senator HART. Thank you very much. We appreciate your statement. It will be extremely helpful to us.

Mr. MUNROE. Thank you.

Senator HART. I would like to welcome Scott Dial who represents the Clayton Brokerage Co.

Mr. Dial.

#### STATEMENT OF SCOTT DIAL, CLAYTON BROKERAGE CO.

Mr. DIAL. My name is Scott Dial and I am here to talk about silver in the strategic stockpile. As a silver specialist with one of the Nation's largest commodity futures companies, my father, brother, and I handle a large investment and commercial clientele in silver.

Additionally, as the silver committee chairman of the International Precious Metals Institute, I am involved with coordinating that organization's dissemination of, and research into, the subject of silver for an international membership of educators, businessmen, and scientists. I appear here today to represent my own views on silver, a subject in which I am the third generation of my family to deal.

Mr. Chairman, as there are some 93 commodities that make up the strategic stockpile, it is crucial that I make very clear just why it is important that silver be spotlighted in these stockpile discussions, particularly since the entire stockpile holding of 140 million ounces of silver was declared excess as recently as 1976. Today, as so often in recent years, a bill is before Congress to sell some or all of this silver. Let me develop my case in opposition to this as follows:



First, the stockpile was established to insure that our economy will have available the necessary raw materials to support military and basic civilian requirements during periods of war, national emergency, and when required for the common defense.

Second, with the virtual exhaustion of the U.S. Treasury silver stockpile by 1971, the United States has been a net importer of over half a billion ounces of silver for an average of almost 70 million ounces a year, or 43 percent of annual industrial consumption.

To underscore the degree of our import dependence, the United States requires net imports of 41 percent of its petroleum needs from primarily four foreign nations and requires net imports of 43 percent of its silver needs from primarily three foreign nations. Last September, Senator, you reiterated the original purpose of the Strategic and Critical Materials Stockpiling Act of 1946 as—

... to decrease and prevent wherever possible a dangerous dependence of the United States upon foreign nations for supplies of these materials in times of national emergency.

Our one-half billion ounce net import requirement has cost the United States over those years almost \$2 billion.

Third, the foregoing has not dealt with United States' military needs for silver. Proposed new weapons systems alone have indicated requirements for the cruise missile, the MX missile, and the Trident submarine that run to many times the amount of silver in the stockpile. It was reported last week that because of this a bill will shortly be introduced by Representative Larry McDonald of Georgia to buy additional silver for the stockpile.

It is at this point that a crucial question begs to be asked: In view of these facts, why was silver ever declared as excess to stockpile needs? Mr. Ronald Royal of the Federal Preparedness Agency answered the question broadly in written response to questions submitted at the September 9 hearing: "Technological obsolescence constitutes the principal reason why these materials are no longer suitable to support our industrial and defense sectors in a national emergency."

This is a most questionable statement when applied to silver. Regarding the new weapons system mentioned, the indicated silver usage, primarily in batteries, hardly suggests any technological obsolescence. In fact, Westinghouse Research, in announcing just last fall the development of a silver battery reported as being ideally designed for such weapons systems, said, "This battery system provides a combination of the highest presently available specific energy content with high-power capability and long deep-discharge life." This new usage, coupled with increasing industrial import dependence, casts grave doubt upon the idea of any technological obsolescence regarding silver.

On the other hand, the excess label could have been used, as various Congressmen have suggested, as a means for an administration, by a subsequent silver sale, to augment budget reserves. Certainly, as the value of the stockpiled silver is over \$700 million, this might be an answer.

One must also consider the efforts of the Silver Users Association in its active support of various silver disposal bills. Located here in Washington, it has, understandably, been most anxious to aid its mem-



bership in acquiring a large supply of relatively low-priced silver, and disposal would have the effect of temporarily causing a decline in the price of silver.

Contrary to Mr. Ronald Royal's prepared statement to the Silver Users Association in January that, from 1968 to 1971, Treasury silver was sold without market disruption. In fact, the ensuing market volatility resulted in a price range during these years that was greater than that of any previous consecutive 4-year period in the history of the United States and saw the price cut in half.

Thus, while such sales might have monetary benefit for some, the excess label for silver seems ill-applied in view of the recognized stockpile purpose and current, as well as future, U.S. silver needs.

Another possible reason for the excess label and attempted disposal of silver could be the position recently taken by the administration and the Silver Users' Association that as the United States depends upon three allies for the bulk of its silver imports—Canada, Mexico, and Peru—our own silver stockpile is unnecessary. Yet, to make the silver-petroleum comparison once more, among the four principle suppliers of petroleum in the United States—Canada, Venezuela, Saudi Arabia, and Nigeria—no belligerents are evident, and our two geographical neighbors, Canada and Venezuela, afforded us very little relief during the oil crisis of recent years.

In short, traditional goodwill and proximity of foreign suppliers were not to be counted on in a crisis. The Stockpile Act charges Congress with responsibility to maintain an adequate and available stockpile in crisis situations, freeing the United States from costly foreign dependence. I cannot see how the current status of silver in the stockpile is consistent with this responsibility.

What about the future? The U.S. Geological Survey warned in 1973, silver is a critical element in our national economy and one in which our Nation and the Free World are confronted with a long-range problem of serious imbalance between consumption and new production.

A World Bank research publication repeated this warning just last year by finding, among significant minerals the only ones whose reserves are assuredly tight or critical are silver and tin. Once again, the excess status of silver must be seriously challenged.

Mr. Chairman, there are various pieces of stockpile legislation that will be considered by the committee. I close with the sincere hope that the critical and increasing importance of silver in the strategic stockpile will be fully realized and incorporated into whatever legislation this committee and Congress ultimately establishes.

My sincere thanks to you, Mr. Chairman, and to the committee. I welcome any questions.

I have one other comment; it sounds like an 11th hour development but in talking with my office this morning something that regards development of batteries I think is particularly pertinent. It has been brought up about batteries being used in these various missile programs. In various phone calls to people involved with this the Defense Department, probably the main competitor for silver-based batteries and lithium-based batteries, this morning according to the wire report that I was given the Canadian Transport Authority has



banned lithium batteries as a result of the fact that two of them have exploded recently in testing.

So as we do have administration witnesses here today, I think it is very crucial that we discuss this among other things.

Thank you.

Senator HART. Thank you, Mr. Dial.

Could you give this committee information regarding the amount of silver imported from Canada, Mexico, and Peru?

Mr. DIAL. Basically, as I said, the United States does import about 41 percent and virtually all of that import requirement comes from these nations. I might tie this to a degree to bridge it all together with the copper. In the United States of the production of silver the majority of that silver is produced as a byproduct of copper and whereas the copper industry here has certainly been hurt by foreign copper production in fact there is very little silver produced in foreign nations as a byproduct of copper production.

The point that I am making here is that these nations—Canada, Mexico, and Peru—provide us with the bulk of our silver, we cannot go elsewhere to look for it.

Senator HART. Understanding your interest in the specific issue of silver, do you have any comments on the overhaul legislation represented both by S. 2575, S. 1810, and/or H.R. 4895 on the administration stockpile?

Mr. DIAL. No. There are gentlemen here more knowledgeable on copper and tin than I am but, again, if I can apply logic here I am talking about the silver because it is a very logical commodity in many respects. In the case of the Government, they cannot use it but we have enough that we sell it as surplus silver and the other commodities it is very simplistic and logical that if we have during the peacetime an established dependence that it is only reasonable to assume that under a wartime category that we are going to be using that.

As was mentioned by Mr. Strauss, we used to use Cuba for nickel—it was awfully close to use and now it is seemingly millions of miles away so now we have Canada, Mexico, and Peru. Mexico is beginning production of silver coins again. I guess to me the logic and simplicity appeals to me as far as Senator McClure's bill and I certainly agree with that and any other similar legislation.

Senator HART. I believe that is all the questions we have. If you want to supplement your remarks while the record stays open, you are certainly welcome to.

Mr. DIAL. Thank you, Senator. I appreciate it.

Senator HART. Thank you, Mr. Dial.

Senator HART. Walter L. Frankland, Jr., Silver Users Association, Incorporated.

#### STATEMENT OF WALTER L. FRANKLAND, JR., SILVER USERS ASSOCIATION, INC.

Mr. FRANKLAND. Senator Hart, I would request that the entire statement be introduced for the record.

Senator HART. Without objection, it will be introduced.

[The prepared statement follows:]



Statement of  
Silver Users Association, Inc.  
Subcommittee on Military Construction and Stockpiles

Armed Services Committee

UNITED STATES SENATE

March 9, 1978

Mr. Chairman:

We appreciate the opportunity to appear today to express the views of the members of the Silver Users Association regarding the various legislative proposals for the strategic stockpile.

The Silver Users Association is composed of manufacturers which use silver in the production of photographic film, electrical appliances and contacts, silverware, fabricated industrial products, commemorative art, jewelry and medical supplies. It is estimated that members of SUA consume approximately 80% of the silver used in domestic manufacturing. A list of the current membership is attached as enclosure A to this statement. A Fact Sheet explaining in more detail the purpose of the Silver Users Association is at enclosure B.

The statement we offer today is presented in the context of our concern for a particular commodity -- silver, although our comments may in some cases be applicable to other commodities. There are two areas about which we have suggestions. They are first, the release of silver which for many years has been declared surplus by the National Security Council; and, second,



the formula for determining stockpile objectives by the import-dependency concept.

#### SUA SUPPORTS SILVER SURPLUS SALES

The Silver Users Association has consistently taken the position that the amount of silver determined to be surplus to defense requirements should be returned to the market from which it originally came. For more than five years, silver in varying amounts has been declared surplus by three different administrations including the current one. The Strategic and Critical Materials Stock Piling Act specifically provides that commodities declared surplus are to be made available to the market "with due regard to the protection of the United States against avoidable loss...and the protection of producers, processors, and consumers against avoidable disruption of their usual markets..." Congress has been exceptionally slow in performing its approval role in this procedure.

The Association believes that now is the time for the Congress to act in carrying out its responsibility. We, therefore, urge approval of legislation to release silver to the market as soon as possible. We advocate that the disposals be made in a manner comparable to the sales conducted by the General Services Administration during the period 1967-1970. We suggest that weekly auctions be in amounts between 500,000 ounces and one million ounces.

Rationale for the SUA position supporting legislation which calls for the release of surplus silver from the stockpile may be summarized as follows:

- By National Security Council criteria, 140 million ounces of silver have been declared surplus to defense needs.
- With the high current market price for silver (\$5.00 per oz) the sale of government silver would mean increased revenue to the Treasury, benefiting all taxpayers and could reduce the budget deficit.
- Government silver made available to the market would meet a portion of domestic requirements, thus lessening the need for imports.



- Additional supplies to the market of usable metal would be in the best interests of millions of Americans who consume products using silver - photographic, electrical, silverware, and medical and dental supplies.

#### GOVERNMENT SALES WOULD IMPROVE BALANCE OF PAYMENTS

Because the U.S. is a net importer of silver, this metal contributes unfavorably to a deficit in the balance of payments. Should supplies be made available from government stocks, the need for imports would be reduced. At the average price of \$4.62 per ounce for 1977, the cost of silver net imports was approximately \$360 million. If imports continue in 1978 at the same level, the cost would be even higher than in 1977 at current prices (\$5.00). For every ten-cent increase in the price, the cost for silver imported at the 1977 rate will be about an additional \$7.8 million.

#### GOVERNMENT SILVER SALES WOULD MEAN NET REVENUE TO THE TREASURY

Sales of government silver at the price level of 1977 would mean additional revenue to the government of \$4.62 per ounce sold. At current prices, the revenue to the government would be about \$5.00 per ounce. With an average price at the latter amount, the full stockpile release of 140 million ounces would realize a profit to the government of approximately \$520 million.

#### PROBLEMS OF SILVER PROCESSORS IN CURRENT MARKET

Because of the recent recession and the high silver prices, the users of the white metal made drastic changes in their production schedules to include additional cutbacks and employee layoffs. Every 10-cent increase in the price for silver means additional raw material costs of \$16 million to the manufacturers on an annual basis.

Historically in the silverware industry when prices rise materially, the number of unit sales drops. This means less consumption of silver and a comparable drop in employment. Thus, unreasonably high prices for the white metal would contribute to a worsening of the employment picture. Release from the stockpile should help keep prices for the raw material at a reasonable level so that manufacturers could avoid unnecessary price increases due to higher raw material costs.



## SUA SUPPORTS AN AMENDED IMPORT-DEPENDENCY FORMULA FOR DETERMINING OBJECTIVES (S.1810)

As mentioned earlier, a second area of interest to SUA concerns the import-dependency concept for determining stockpile objectives as provided in S. 1810.

The proposals contained in the bill would mean an important departure from past practices used to determine the size of stockpiles for the many commodities deemed essential for strategic purposes. Due to the sensitivity of many of these wartime factors and assumptions, the Silver Users Association as one of the affected publics in this legislative area has not had the information necessary to critique past practices. It still does not have that information and does not now criticize the methodology so developed. For that reason, in the past, SUA has never advocated a particular level of the stockpile for silver. Its position has been to advocate disposal of that portion of the stockpile determined surplus after the application of what one can easily understand to be a very complex procedure.

With the development of the import-dependency concept for determining stockpile objectives, now embodied in S. 1810, SUA has studied the proposal. It finds that when relying upon import-dependency with no consideration of proximity and accessibility of the imports, stockpile levels appear distorted, unrealistic and too costly to the taxpayer.

Although silver is the commodity which has clearly demonstrated what one could label as a weakness in the concept, many other commodities are also available from the Western Hemisphere, especially Canada and Mexico.

It can be argued, perhaps, that the responsibility for determining in which category a particular commodity is classified permits the interagency committee some flexibility in this regard. However, just such subjective judgement is of the type which the bill was designed to eliminate.

Accordingly, if the import-dependency concept is incorporated in stockpile legislation, SUA would urge subcommittee members to amend the procedure so that accessibility of commodities largely available from the Western Hemisphere, especially Canada and Mexico, is clearly recognized. To clarify this point, let us use silver as an example:



Following a strict interpretation of the proposal contained in S. 1810, the annual gross import deficit in silver is 81 million ounces. On the average, the net annual imports from Canada are 33 million ounces and from Mexico we receive some 28 million ounces per year. Using the imports from our two neighbors as an offset to the gross annual import deficit, we see that the more reasonable deficit level would be 20 million ounces, rather than 81 million ounces per year.

Put in percentage terms, we see that 75% of the deficit is represented by the silver which flows across our borders from our neighbors while another 22% arrives from other countries in the Western Hemisphere.

Again referring to S. 1810, silver, if deemed a strategic commodity by the interagency committee, by strict definition would fall into Category B -- or a two-year level of stocks based on net import-dependency. Without considering Western Hemisphere availability of the white metal, the stockpile level would be 162 million ounces. When a more realistic approach of using Western Hemisphere silver as an offset is considered, the stockpile level is reduced to 4 million ounces. It rises to 40 million ounces if the offset is restricted to the silver received from Canada and Mexico. It is still higher, at 96 million ounces when only the silver from Canada offsets the gross deficit for the two-year category.

SUA firmly believes that applying the amount of any commodity available from the Western Hemisphere, especially Canada and Mexico, as an offset to the gross import deficit to determine the stockpile level is a logical and acceptable procedure should the Congress choose to depart from the methodology adopted by the present interagency stockpile committee. Therefore, SUA recommends the following changes to S. 1810: (Page 3, beginning with line 15 through line 24)

"(A) The stockpile objective for any material designated as a class A material shall be a quantity equal to three years' domestic net imports of such material, less the net imports of the material from the Western Hemisphere during the same period.



"(B) The stockpile objective for any material designated as a class B material shall be a quantity equal to two years' domestic net imports of such material, less the net imports of the material from the Western Hemisphere during the same period.

"(C) The stockpile objective for any material designated as a class C material shall be a quantity equal to one year's net imports of such material, less the net imports of the material from the Western Hemisphere during the same period...."

Mr. Chairman, we request that some additional material be received for the record as relevant to the SUA positions discussed. I refer to Enclosure C, entitled, "Background on Domestic Silver," and its attachments.

Thank you.

SILVER STATISTICS RELATING TO THE STOCKPILE  
(Millions of Ounces)

|                                                                                 |                         |
|---------------------------------------------------------------------------------|-------------------------|
| Current supply held in strategic stockpile                                      | 140                     |
| Stockpile objective (October, 1977)                                             | None                    |
| Annual average net-import deficit                                               | 81                      |
| Annual average offset from Western Hemisphere                                   | 79                      |
| Annual average offset from Canada                                               | 33                      |
| Annual average offset from Mexico                                               | 28                      |
| S. 1810 (Senator McClure) silver stockpile proposal - a two year objective of - | 162                     |
| Western Hemisphere offset - 158, or a net objective of -                        | 4 and a surplus of 136  |
| Canada and Mexico offset - 122, or a net objective of -                         | 40 and a surplus of 100 |

Enclosures: A. SUA Members  
B. FACT SHEET: Purpose of SUA  
C. BACKGROUND ON DOMESTIC SILVER



SILVER USERS ASSOCIATION, INC.  
1717 K Street, N. W.  
Washington, D. C. 20006

SUA MEMBERS

PHOTOGRAPHIC MATERIALS

E. I. du Pont de Nemours & Company, Inc. - Wilmington, Delaware  
Eastman Kodak Company - Rochester, New York  
Minnesota Mining & Manufacturing Company - St. Paul, Minnesota  
Polaroid Corporation - Cambridge, Massachusetts  
Powers Chemco, Inc. - Glen Cove, New York

SILVERWARE

Gorham Division of Textron, Inc. - Providence, Rhode Island  
International Silver Company - Meriden, Connecticut  
Samuel Kirk & Son, Inc. - Baltimore, Maryland  
Lunt Silversmiths - Greenfield, Massachusetts  
Oneida Limited - Oneida, New York  
Reed & Barton Silversmiths - Taunton, Massachusetts  
The Stieff Company - Baltimore, Maryland  
Tiffany & Company - New York, New York  
Towle Manufacturing Company - Newburyport, Massachusetts  
Wallace Silversmiths - Wallingford, Connecticut

COMMEMORATIVE AND COLLECTOR ARTS

Franklin Mint Corporation - Franklin Center, Pennsylvania  
Medallic Art Company - Danbury, Connecticut

FABRICATED AND INDUSTRIAL PRODUCTS

Engelhard Industries - Iselin, New Jersey  
Handy & Harman - New York, New York  
Midland Processing, Inc. - Pomona, New York  
Precision Metallurgical Corporation - Millis, Massachusetts

ASSOCIATIONS

Manufacturing Jewelers & Silversmiths of America, Inc.  
National Association of Mirror Manufacturers



## FACT SHEET: Purpose of SUA, Inc.

The Silver Users Association, Inc., established in 1947, represents the interests of corporations that make, distribute and sell products in which silver forms an essential part. Association membership today includes representatives from the photographic, electronic, chemical, commemorative arts, silverware and jewelry industries; dental suppliers; producers of semi-fabricated and industrial products; and mirror manufacturers.

A major purpose of the Association is to keep its members and the public informed on the pertinent developments in the field of silver; such as, production, consumption, availability, uses, prices, regulations and legislation.

The applications of silver are highly diversified and range from photography to missiles; from computers to sterling jewelry. An approximate breakdown of the silver usage in the U. S. shows these percentages: photography, 34.8%; electrical and electronics, 24.0%; sterling ware, 10.3%; brazing alloys, 8.5%; catalysts, 6.6%; jewelry, 5.0%; electroplated ware, 4.5%; commemorative and collectors arts, 2.6%; mirrors, 1.5%; and, all others, such as bearings, dental and medical supplies and rockets and missiles, 2.2%.

The Association estimates that its members account for approximately 80% of all silver consumed in the United States. More than 80,000 men and women work for Association members who are heavily dependent upon silver for manufacturing. In addition, there are about 1,500 firms of the Manufacturing Jewelers and Silversmiths of America and their 70-75,000 employees; and, the 22 members of the National Association of Mirror Manufacturers and their employees. The Association was incorporated in the District of Columbia in April, 1971.

President of the Silver Users Association, Inc., is Mr. Robert F. Wilson, President, Wallace Silversmiths. Mr. Jay Powers, Treasurer, Powers Chemco, is Vice President and Chairman of the Executive Committee. In addition to these two officers, other members of the latter committee are:

- Mr. Philip G. Deuchler, Handy & Harman; Treasurer, SUA, Inc.
- Mr. George R. Frankovich, Manufacturing Jewelers & Silversmiths of America, Inc.
- Mr. Frank E. Grzelecki, Gorham Division of Textron, Inc.
- Mr. J. J. Keenan, Engelhard Industries
- Mr. Denham C. Lunt, Lunt Silversmiths
- Mr. R. C. Mack, Eastman Kodak Company
- Mr. Donald Schwartz, Medallion Art Company
- Mr. John L. Whitehead, E. I. du Pont de Nemours & Co., Inc.
- Mr. Robert Wiele, Minnesota Mining & Manufacturing Company
- Mr. Walter L. Frankland, Jr., Executive Vice President-Secretary, SUA, Inc.

Enclosure B



BACKGROUND ON DOMESTIC SILVERGeneral

During its two hundred-year history, the U. S. Government has been the largest buyer, user and seller of silver. Currently, it is probably the largest single holder of silver in the world with 139.5 million ounces in the strategic stockpile, 39 million ounces in the U. S. Mint and 6 million ounces held by the Defense Department.

Domestic Supplies

- New production in the U. S. for 1977 amounted to 37 million ounces.  
(Source: Bureau of Mines)
- Secondary recovery from scrap including melted coins is estimated at 72 million ounces for 1977.  
(Source: The Silver Institute)
- Net imports accounted for 78 million ounces during 1977. All but 16 million ounces of this figure are attributed to countries of the Western Hemisphere.  
(Source: Handy & Harman)

Domestic Consumption

Industrial demand in the U. S. for 1977 was estimated by the Bureau of Mines at 165 million ounces, a drop of five million ounces from 1976. In addition to new production, scrap recovery and imports, other silver used to meet industrial requirements in recent years has come from industry inventories and speculative holdings. A breakdown by usage category is contained in Attachment 1.

Enclosure C



### Price

At the time the Treasury ceased selling silver to all comers in 1967, the price was \$1.29 per ounce. While the U. S. Government sold silver to domestic users at \$1.29, a two-tier price system existed with the world price reaching \$1.78. In July, 1967, the Treasury withdrew from the market and a month later sales were resumed as a weekly auction through November 10, 1970. Prices rose to a high of \$2.565 by June, 1968, and then began dropping until a low of \$1.288 was recorded on November of 1971. The average price in 1972 was \$1.68; \$2.57 in 1973; \$4.71 in 1974; \$4.42 in 1975; \$4.35 in 1976; and, \$4.62 in 1977.

A record high was established at \$6.70 on February 26, 1974. The strong upward pressure on the price was caused by a world-wide distrust of currencies and a speculative and investment craze. For the last three years, silver prices have fluctuated between \$3.80 and \$5.20. The average price for 1978 through February was \$4.937 with the high of \$5.035 on February 21 and the low of \$4.829 on January 5.

### Government Stockpile

Silver was first placed in the strategic stockpile in June, 1968, when 165 million ounces were transferred from the Treasury in accordance with the Silver Certificate Adjustment Act of 1967. By the Bank Holding Company Act of 1970, 25.5 million ounces were transferred to the Treasury for use in the Eisenhower coin program. The Stockpile currently contains 139.5 million ounces.

The Silver Users Association, in establishing its position on the stockpile issue, does not attempt to determine what should be considered an appropriate level of silver to meet defense needs. Rather, the Association firmly supports the concept of an orderly disposal of whatever silver is determined to be surplus to defense requirements.



In this regard, the Association wishes to point out that the United States, Canada and Mexico together produce about 123 million ounces. When one considers that the balance of the Western Hemisphere supplies an additional 52 million ounces of new production making a total of about 175 million ounces against an annual current demand of 165 million ounces in the U. S., it is evident that this raw material would be easily accessible in an emergency. The cited production does not include silver recovered in the U. S. annually from coins and other forms of usable scrap which in 1977 was estimated at some 72 million ounces.

The National Security Council has determined that there is no requirement for stockpiling silver. The amount currently in the stockpile-140 million ounces-is surplus to defense needs. It should be noted that other stocks in this country could become available for extreme emergencies not contemplated in the plans, such as:

- 39 million ounces in the Treasury stocks for coinage
- 34 million ounces held by industry
- 6 million ounces in Defense Department stocks for contracts with government furnished material provisions
- 133 million ounces in COMEX and Chicago Board of Trade warehouses
- An estimated 250-900 million ounces in 90% U. S. silver coins held by citizens
- An undetermined amount of silver in ingots held as investments by citizens.

Attachments: 1. U. S. Industrial Consumption (1973-1977)  
 2. World Silver Consumption and Supplies (1973-1977)  
 3. Price History (1967-1977)  
 Industry Stocks (1967-1977)



U. S. INDUSTRIAL CONSUMPTION

(Millions of Ounces)

| <u>Category</u>                     | <u>1977</u> | <u>1976</u> | <u>1975</u> | <u>1974</u> | <u>1973</u> |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Electroplated ware-----             | 7.2         | 9.5         | 8.7         | 13.2        | 14.5        |
| Sterling ware-----                  | 16.6        | 19.8        | 23.7        | 22.2        | 29.4        |
| Jewelry-----                        | 8.1         | 11.0        | 12.7        | 5.2         | 5.8         |
| Photographic materials-----         | 56.0        | 55.5        | 46.1        | 49.6        | 52.0        |
| Dental and Medical supplies-----    | 2.0         | 1.9         | 1.5         | 2.4         | 3.0         |
| Mirrors-----                        | 2.5         | 4.6         | 3.1         | 3.9         | 2.6         |
| Brazing Alloys and solders-----     | 13.7        | 11.2        | 13.6        | 14.5        | 17.7        |
| Electrical and electronic products: |             |             |             |             |             |
| Batteries-----                      | 6.3         | 3.5         | 4.3         | 4.2         | 4.2         |
| Contact and conductors-----         | 32.5        | 32.3        | 27.2        | 31.3        | 40.2        |
| Bearings-----                       | .5          | .3          | .5          | .4          | .4          |
| Catalysts-----                      | 10.7        | 12.3        | 8.8         | 7.3         | 6.0         |
| Coins, Medallions and               |             |             |             |             |             |
| Commemorative objects-----          | 4.2         | 8.2         | 7.2         | 22.3        | 20.1        |
| Miscellaneous-----                  | <u>.7</u>   | <u>.4</u>   | <u>.3</u>   | <u>.5</u>   | <u>.5</u>   |
| TOTAL-----                          | 161.0       | 170.5       | 157.7       | 177.0       | 196.4       |

Source: Bureau of Mines, 1973-1976  
 Handy & Harman, 1977

Attachment 1



WORLD SILVER CONSUMPTION AND SUPPLIES\*

(In Millions of Ounces)

| <u>CONSUMPTION</u>                                          | <u>1977</u> | <u>1976</u> | <u>1975</u> | <u>1974</u> | <u>1973</u> |
|-------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Uses:                                            |             |             |             |             |             |
| United States                                               | 161         | 171         | 158         | 177         | 196         |
| Other Countries                                             | 228         | 228         | 208         | 247         | 282         |
| Coinage Uses:                                               |             |             |             |             |             |
| United States                                               | 1           | 1           | 3           | 1           | 1           |
| Other Countries                                             | 21          | 29          | 36          | 27          | 28          |
| Total Consumption                                           | <u>411</u>  | <u>429</u>  | <u>405</u>  | <u>452</u>  | <u>507</u>  |
| <u>SUPPLIES</u>                                             |             |             |             |             |             |
| New Production                                              | 248         | 247         | 238         | 239         | 254         |
| U. S. Treasury Silver                                       | 1           | 1           | 3           | 1           | 1           |
| Other Supplies                                              | <u>152</u>  | <u>201</u>  | <u>180</u>  | <u>166</u>  | <u>190</u>  |
| Total Supplies                                              | 401         | 449         | 421         | 406         | 445         |
| Liquidation of (Additions<br>to) Speculative<br>Inventories | <u>10</u>   | <u>20</u>   | <u>16</u>   | <u>46</u>   | <u>62</u>   |
| Available for<br>Consumption                                | <u>411</u>  | <u>429</u>  | <u>405</u>  | <u>452</u>  | <u>507</u>  |

Data taken from Handy &amp; Harman Silver Reviews

\*Excluding Communist Dominated Areas

Attachment 2



SILVER PRICE HISTORY (H&H-N.Y.)

1967 - 1977

(\$ Per Ounce)

| <u>YEAR</u> | <u>HIGH</u> | <u>LOW</u> | <u>AVERAGE</u> |
|-------------|-------------|------------|----------------|
| 1977        | \$4.96      | \$4.32     | \$4.62         |
| 1976        | 5.10        | 3.82       | 4.35           |
| 1975        | 5.23        | 3.91       | 4.42           |
| 1974        | 6.70        | 3.27       | 4.71           |
| 1973        | 3.28        | 1.96       | 2.56           |
| 1972        | 2.05        | 1.39       | 1.69           |
| 1971        | 1.75        | 1.29       | 1.55           |
| 1970        | 1.93        | 1.57       | 1.77           |
| 1969        | 2.03        | 1.54       | 1.79           |
| 1968        | 2.57        | 1.81       | 2.15           |
| 1967        | 2.17        | 1.29       | 1.55           |
| 1966        | 1.29        | 1.29       | 1.29           |

SILVER IN U. S. INDUSTRY STOCKS

(Millions of Ounces)

|           |    |
|-----------|----|
| 1977..... | 33 |
| 1976..... | 30 |
| 1975..... | 35 |
| 1974..... | 60 |
| 1973..... | 38 |
| 1972..... | 52 |
| 1971..... | 56 |
| 1970..... | 82 |
| 1969..... | 86 |
| 1968..... | 77 |
| 1967..... | 52 |

Source: Bureau of mines

Attachment 3



Mr. FRANKLAND. I am Walter L. Frankland, Jr., executive vice president of the Silver Users Association Inc., with offices in Washington.

We appreciate, Mr. Chairman, the opportunity to appear today to express the views of the members of the Silver Users Association regarding the various legislative proposals for the strategic stockpile.

By National Security Council criteria, 140 million ounces of silver have been declared surplus to defense needs.

With the high current market price for silver, \$5 per ounce—I don't know whether it is higher than that, now that the market is open—the sale of Government silver would mean increased revenue to the Treasury, benefiting all taxpayers and could reduce the budget deficit.

Government silver made available to the market would meet a portion of domestic requirements, thus lessening the need for imports.

Additional supplies to the market of usable metal would be in the best interests of millions of Americans who consume products using silver—photographic, electrical, silverware, and medical and dental supplies.

In keeping with the current stockpile law which requires silver surplus to defense needs to be returned to the market, the association believes that now is the time for the Congress to act in carrying out its responsibility. We advocate that the disposals be made in a manner comparable to the sales conducted by the General Services Administration during the period 1967-70. We suggest that weekly auctions be in amounts between 500,000 ounces and 1 million ounces.

At current prices, a sale of the entire stock of Government silver would mean a profit of some \$500 million.

Concerning S. 1810, a stockpile bill related to imports offered by Senator James McClure, we urge subcommittee members to amend the procedure so that accessibility of commodities largely available from the Western Hemisphere, especially Canada and Mexico, is clearly recognized.

We find that when relying upon import-dependency with no consideration of proximity and accessibility of the imports, stockpile levels appear distorted, unrealistic and too costly to the taxpayer. Although silver is the commodity which has clearly demonstrated what one could label as a weakness in the concept, many other commodities are also available from the Western Hemisphere, especially Canada and Mexico.

SUA firmly believes that applying the amount of any commodity available from the Western Hemisphere, especially Canada and Mexico, as an offset to the gross import deficit to determine the stockpile level, is a logical and acceptable procedure should the Congress choose to depart from the methodology adopted by the present interagency stockpile committee.

From statistics available to SUA, when Western Hemisphere silver is considered, 2-year stockpile goals would be 4 million ounces. Offsets of silver from Canada and Mexico, only, could mean a 2-year level of 40 million ounces, if the McClure bill were adopted.

To this end, Mr. Chairman, SUA would offer an amendment to section 2 of S. 1810—and it begins on page 3 with line 15 through 24. That is the portion of that bill which defines how the stockpile objective



would be determined under the import-dependency concept. At subparagraph (A) it states, "The stockpile objective for any material designated as a class A material shall be a quantity equal to 3 years' domestic net imports of such material . . .", and this is the wording that we would add: "less the net imports of the material from the Western Hemisphere during the same period."

We would also offer changes to the other two paragraphs dealing with the 2-year and the 1-year stockpile levels.

Mr. Chairman, the association has taken no position on S. 2575. We consider it probably a bill needed to update the administration of the stockpile; but, we have no specific position on that particular bill.

In conclusion, Mr. Chairman, let me say that as an association with members which represent the closest thing we have to consumers here in the room, we are not asking anything special for the users of silver. We only ask for equity.

The silver was removed from the market at higher than world prices in the past, the silver has been declared surplus in accordance with the present law and we ask that the Congress carry out its function and authorize the return of the metal to the market. The users, Mr. Chairman, will take their chances in the so-call free market as to the price.

I would like to add though, that I believe the previous witness has testified incorrectly as to the effect on the price of silver during the Government sales. I am sure that the representatives of the Government can clarify that point; but I think it is interesting to note that during the first 9 months of Government sales, the price actually doubled.

It did return to the starting point at \$1.29 per ounce but only 1 year after the Government quit selling. In other words, as the Government cut back the amount of silver it was offering to the market through the silver certificates and through sales, the price of silver dropped and it was 1 year after the Government quit selling that the price went back to where it started. Whether or not you would have a similar situation with new sales would be hard to tell.

This completes my statement, Mr. Chairman. I would be glad to answer any questions.

Senator HART. Thank you, Mr. Frankland. Your last comments I take it go to the point that it is not necessarily the case that the governmental disposal of a material or commodity or mineral directly functions on the market, is that the case necessarily?

Mr. FRANKLAND. Not necessarily because there are so many factors that affect the price of silver—even the rainfall in India seems to have some effect on it from time to time. It really can be carried to extremes. Most of the things that happen to silver cause the price to go up. I seldom find anything that causes the price to go down.

Senator HART. You don't address yourself too forcefully to the argument about the security needs. I think you are relying primarily on the findings of the National Security Council and so on. How do you address yourself to the argument by Mr. Dial and others that our defense requirements are substantial or could be in evolving weapon systems that our experience with Cuba in the past is an example of how little we can rely on Western Hemisphere suppliers and so on?

Mr. FRANKLAND. I guess I ought to preface it by the fact that I did spend 20 years in the military so I am not against military defense or the need for defense of our Nation. With the preface, I would then



state that we do rely heavily upon the defense planners and those who have administrative control over the execution of the stockpile law.

It is not new that silver is surplus to "defense needs." In fact, I think if the record were researched you would find that the original need for silver in the case of the United States was dictated by the huge requirement of putting silver into coinage and it was only as a result of getting out of silver in coinage that the stockpile need was removed, as you well know, being from the West.

Senator HART. Very well.

Mr. FRANKLAND. In that battle there was some silver left that could be placed in the defense stockpile and even after that was done the amounts required for defense needs were relatively small according to all the studies that have been done. If there is any particular commodity that has been studied and re-studied on whether or not it is time for it to be released, I think silver takes first place at getting the most attention. That is one point, the fact that we do rely on the defense planners. We do not have the expertise to criticize that procedure.

I guess, secondly, the law was set up initially to provide for defense needs and once they were over and the silver declared surplus, we believe that it is fair that the surplus silver come back to the market from which it originally came.

Senator HART. Do you believe our import supplies from Canada and Mexico are secure?

Mr. FRANKLAND. I am not an expert in that area either, but, I would say this, Mr. Chairman. If at the time of greatest need the United States has trouble getting silver from Canada and Mexico, I think we are in much more serious trouble than the amount of silver we need for defense, which right now is zero. I would answer it in that way. I would add, too, that they are as secure as any kind of supply source would be.

I look with interest on the testimony of the producers as they talk in terms of tin which we don't even produce. The producers rely heavily on the defense planners for the objectives in the case of tin and some of these other commodities; but, when it comes to silver where the objective has been established by the same rules to determine the surplus, they have a different view. I do look at that with a great deal of interest.

Senator HART. Thank you very much, Mr. Frankland. We appreciate your being here and giving your testimony.

Mr. FRANKLAND. Thank you, Senator Hart.

Senator HART. Our next witness will be Dr. Brent Brown representing the office of the Governor of Arizona. Dr. Brown is responsible for economic planning and development.

We are glad to have you with us.

#### **STATEMENT OF BRENT W. BROWN, OFFICE OF THE GOVERNOR OF ARIZONA FOR ECONOMIC PLANNING AND DEVELOPMENT**

Mr. BROWN. Thank you, Mr. Chairman.

Mr. Chairman, I am here to testify on behalf of Gov. Bruce Babbitt who just assumed office 2 or 3 days ago.

Senator HART. He is an acquaintance of mine. Give him my regards.

Mr. BROWN. I certainly will.



I would like to emphasize in Arizona we believe that the copper industry is in serious trouble and I would like to present a case for the strategic stockpiling of copper. The U.S. Government has maintained a large stockpile of the strategic defense material in past years. Presently, there is almost no copper stockpile at all.

Low prices, oversupply, and escalating costs in the copper industry have profound impacts in Arizona which produces 63.8 percent of all U.S. copper.

Last June the copper mines in Arizona were forced to lay off just under 30 percent of the industry's employees—about 8,800 persons. Six months later, at the end of 1977, some 5,400 miners still had not been recalled. Mining employment in Arizona remains 24 percent below the June level, and a sizable 42 percent below the 1974 level.

The statewide loss of personal income due to the layoffs was estimated at \$140 million in 1978—about \$56 million greater than was projected last September. This loss of personal income is a direct result of the copper layoffs.

Mining revenues plummeted 36.5 percent during the last 5 months of 1977 compared to the corresponding months in 1976. This sharp drop followed a 12.4-percent growth in mining revenues during the first 7 months of 1977 over the same period in 1976.

MINING REVENUES  
[Dollar amounts in millions]

|                         | 1976  | 1977    | Percent<br>change |
|-------------------------|-------|---------|-------------------|
| January to July.....    | \$769 | \$864.3 | 12.4              |
| August to December..... | 636.9 | 404.5   | -36.5             |

The impact of the copper crisis on employment and personal income in Arizona communities is far more pronounced than at the statewide level. This is particularly the case in 3 of Arizona's 14 counties: Gila, Pima, and Pinal.

The loss of jobs in both mining and other industries is 27 percent of the total employment in Gila County, 18 percent in Pinal County, and 12 percent in Pima County. Since Pima County is the second largest urban area in Arizona, the depressed mining sector is substantially obscured by activity in the other sectors of the economy.

A substantial percentage—64 percent—of the \$140 million loss in personal income in the State will occur in these same three counties, Gila, Pima, and Pinal. As a result of the slump in copper production, the loss in personal income in the three counties will total \$90 million.

Even figures at the county level tend to mask the impacts that might be felt at the community level—especially in communities where copper dominates the local economy. A recent survey conducted by Arizona State University in one remote community in Pima County disclosed that, on the average, sales had decreased 40 percent in 90 percent of the businesses surveyed.

It has become increasingly difficult for the U.S. copper industry to compete with foreign producers. Their costs are lower because they do not have to meet costly environmental controls. Many foreign firms are owned and operated by the State. They are subsidized so that employment levels are maintained. In the process, African and South



American copper mines have actually increased production in the face of declining prices.

As a result, domestic copper mines were producing at only 77 percent of capacity during 1977. This compares with 98 percent of capacity in 1972 and 91 percent in 1973. Low levels of production generally raise unit costs. Combine this with below cost market prices to begin with and you have a truly depressed industry.

#### THE NEED FOR STOCKPILING

First, copper is a strategic defense material and there is almost no copper stockpiled in the United States today. This does not make good sense from a military preparedness perspective.

Second, authorizing the purchase of copper for the strategic stockpile would be a first step in reversing the downward spiral of domestic copper production. Estimations are that the proposed purchase of 225,000 long tons, 250,000 short tons, of copper would provide a market for about one-quarter of the copper produced in Arizona's mines during 1978. It would give the industry a critical moral boost.

Third, if the stockpiling efforts succeed in increasing the demand for copper, a price increase could follow. The domestic price of copper is currently between 60 cents and 61.5 cents per pound, and the price on the London Metal Exchange is 56 to 57 cents per pound. Since the break-even cost of producing copper in the United States is over 75 cents and operating costs alone are 54 cents per pound, a price increase would help to restore health to the ailing industry.

Fourth, in 1976 and 1977 the foreign market price dropped below the domestic cost—encouraging an increase in imports. The percentage of foreign imports have sharply increased, doubling within the last 2 years. The detrimental effects of sizable imports on domestic copper producers was acknowledged by the Department of Labor when trade adjustment assistance was granted to unemployed Arizona miners last year. The trend must be reversed to protect the livelihood and welfare of U.S. workers.

Mr. Chairman, I would like to add to the statement by saying in Arizona copper is an industry and we have certainly felt the results of depressed activity. Some of our smaller communities have been impacted. I have left testimony of some of these people in a packet for anybody that is interested but we cannot ignore the human element and the impact that the market has had on many Arizonans.

I would just like to make a case on behalf of Governor Babbitt to help this industry by stockpiling copper and we think it will have a dramatic impact.

I also would like to point out that although Arizona produces 63 percent of the copper, we recognize that we have only 3 percent of the political clout in Congress and, therefore, we would implore others who also produce copper and are interested in this to look at the Arizona situation and recognize that it has had a dramatic impact on our State.

I would like to leave a packet of supporting materials with the committee. Included in the packet are the following items:

Two recent studies by the Office of Economic Planning and Development. Data in the impact study have been updated in my remarks today.

An article summarizing Arizona initiatives directed at easing the copper crisis.



A study by Arizona State University on the depressed market conditions in the copper industry:

Resolutions passed by the Arizona Legislature; the cities of Globe, Tucson, and Casa Grande; and the Office of Economic Planning and Development Advisory Board.

A letter from Governor Babbitt to President Carter seeking support for the stockpiling of copper, endorsed by Governor Apodaca of New Mexico and Governor Matheson of Utah.

News stories on the copper crisis in Arizona.

Thank you very much.

Senator HART. Thank you, Dr. Brown. I would not discount the weight of your congressional delegation at all. I think they have made the case very well and sometimes it is a case where quality overcomes the quantity even in politics.

Mr. BROWN. I didn't want to say that we did not have quality legislators. We are proud of our legislators.

Senator HART. They have made the case very well. I think last fall as well as the beginning of this session the Representatives from your State and from the producing States have done a great deal to educate other Members of Congress about the plight of the industry, the impact on the economies and so on.

Once again, the two principal questions that I have are those we raised yesterday as well as today, and that is the degree to which the proposed copper purchase for the stockpile would in fact economically and substantially affect the industry. You used the term "dramatic." Do you have any particular evidence to go on that would indicate that this size purchase would in fact represent some reversal of the economic trend?

Mr. BROWN. I think in my testimony I mentioned that it would be about 25 percent of the copper that is produced in Arizona and in talking with industry representatives from Arizona they feel it would have dramatic impact and I am just having to go by what they tell me.

Senator HART. Your information largely comes from the industry.

Mr. BROWN. Yes.

Senator HART. The second thing, and you have mentioned it also, is the impact of the environmental quality controls. Is it your position or that of the Governor that those controls should be relaxed to benefit the industry?

Mr. BROWN. Mr. Chairman, we have very strict controls in Arizona in copper smelters and we have excellent cooperation from the copper smelters in Arizona who are going to live up to those Arizona regulations. We are now in the middle of some extended and probably prolonged controversy with EPA over whose regulations are going to have to be enforced, EPA's or Arizona's. We do have strict regulations and we believe that because a good degree of our economy in Arizona is based on tourism and they come to Arizona for clean air and we have to recognize that and have to protect Arizona's environment. We recognize that the cost is being added to the copper companies. We don't want to relax the environmental controls and we are interested in seeing that some kind of solution can be worked out where our copper companies cannot be analyzed for having to comply with strict environmental protection. We have to have both and we would like to work very much with industry and Congress in seeing if there can't



be some kind of a mechanism worked out where they are not penalized for environmental quality.

Senator HART. Rather than relax controls which are believed to be at least by experts necessary to protect public health, has the industry, to your knowledge, or anyone else proposed that the tariff on imported copper be raised to equal the cost of that environmental control?

Mr. BROWN. Yes, Mr. Chairman. Congressman Udall has proposed something along those lines. Our copper task force that was organized by previous Governor Castro and continued until now is very much interested in following up something along those lines. We are not sure exactly what the consequences of such an action would be but we are very much interested in seeing that some relief can be given to domestic conferences along those lines.

Senator HART. Thank you for taking the trouble to come and appear before this committee. Please convey our best wishes to Governor Babbitt in his new responsibilities.

Mr. BROWN. Thank you very much. I certainly will.

Senator HART. Our next witness will be Mr. James Ferrigan representing Bethlehem Steel Corp.

#### **STATEMENT OF JAMES J. FERRIGAN, THE COMMITTEE OF TIN MILL PRODUCT PRODUCERS OF THE AMERICAN IRON AND STEEL INSTITUTE**

Mr. FERRIGAN. Mine is a short statement and I will read it.

Senator HART. All right.

Mr. FERRIGAN. Mr. Chairman, my name is James J. Ferrigan. I'm assistant general purchasing agent of the Bethlehem Steel Corp. and in that capacity have as one of my responsibilities the supervision of tin purchases.

Bethlehem is a member of the Committee of Tin Mill Product Producers of the American Iron and Steel Institute and it is on behalf of that group that I am appearing today.

The steel industry is the largest tin consumer in the United States and accounts for some 38 percent of the 50,000 tons of tin consumed annually in the production of around 5 million tons of tin-coated tin mill products. Because of its importance to the steel industry in particular and the domestic economy in general, tin has always been considered an essential, if not critical, material and is the basis for its original inclusion in our national strategic stockpile.

It is our understanding that there are at least six, possibly more, bills now pending dealing either with stockpile management, stockpile levels or stockpile release authorizations. Those dealing with releases approach the subject in a slightly different manner and for slightly different stated purposes. Among the several bills, the tonnages being considered for release range from 5,000 tons to as much as 30,000 tons.

The Committee of Tin Mill Product Producers are in general support of some parts of all of the pending legislation with the exception of S. 2181. This latter would authorize a contribution of 5,000 tons of GSA tin to the buffer stock of the International Tin Council.

Representing my company, the Bethlehem Steel Corp., I testified against similar legislation at hearings held on February 16, 1978, by the House Subcommittee on International Economic Policy and Trade. With your permission, Mr. Chairman, I should like to offer for the record a copy of such testimony.

Senator Hart. Without objection, that will be entered at this point.

Mr. FERRIGAN. I will make it available to you, Mr. Chairman.

[The testimony referred to follows:]



TESTIMONY OF JAMES J. FERRIGAN, ASSISTANT GENERAL PURCHASING AGENT, BETHLEHEM STEEL CORP., BEFORE THE SUBCOMMITTEE ON INTERNATIONAL ECONOMIC POLICY AND TRADE, COMMITTEE ON INTERNATIONAL RELATIONS, HOUSE OF REPRESENTATIVES, WASHINGTON, D.C., FEBRUARY 16, 1978

Mr. Chairman:

My name is James J. Ferrigan. I am Assistant General Purchasing Agent of the Bethlehem Steel Corporation, and in that capacity have as one of my responsibilities the supervision of tin purchases.

My Company appreciates this opportunity to present its views on H.R. 9486, a Bill which would authorize a United States contribution of upwards to 5,000 long tons of tin metal to the Tin Buffer Stock established under the Fifth International Tin Agreement.

We had a similar opportunity to present our views when the subject of United States participation in the present Fifth Agreement was being considered by the Senate in July, 1976. Our position at the hearings held by the Senate Committee on Foreign Relations was that the four preceding International Tin Agreements had done little to stabilize the price of tin. Further, we could not foresee the performance of the Fifth Agreement being significantly improved through the simple fact of United States participation.

In support of that premise there was included with our testimony a record of the price activity of three metals, copper, zinc and tin, spanning the twenty years of the first four Agreements. Copper and zinc, both freely traded throughout the world without benefit of international agreement or buffer stock protection, exhibited a much more restrained degree of total price escalation and consistently less drastic price fluctuation than did tin.



That price activity, but in updated form, to reflect the performance for the additional years of 1976 and 1977, is shown in Figure 1. As in our original submission the prices shown represent indices based on 1956, the year the First International Tin Agreement came into effect, equalling 100. It can be seen that all three metals continue to exhibit what are now familiar characteristics. Copper and zinc are at relatively low but stable prices; tin maintains its upward climb.

In order to afford a closer look at the pricing activity over the past two years Figure 2. charts the average indexed price performance of the three metals on a monthly basis. Were the legends to be removed from the chart one might have difficulty in identifying the "managed" metal. Tin continues to appear much less managed and certainly less tractable than the freely traded metals not covered by international commodity agreements. One is led, therefore, to question either the susceptibility of tin to management or the nature and purpose of that management. To us it is clear that, whatever the reason, the present Agreement in which the United States is now a member works no better on behalf of consumers than did its four predecessors.

It has long been recognized, if not always admitted, that none of the previous Agreements was ever as successful in defending the ceiling as it was in defending the floor. The obvious



explanation has been the availability of dual defence mechanisms for the floor - buffer stock funds and export controls, as against only buffer stock tin holdings for the ceiling. The Fifth International Tin Agreement, although never called upon to defend the floor has been virtually helpless in managing any defense of the ceiling.

The current thinking, and that underlying the introduction of the legislation proposed in H.R. 9486, is that the Tin Agreement would work better, particularly for consumers, if the buffer stock were larger. The concept is by no means new, having been proposed and vigorously pursued by the producing countries during the negotiating sessions leading up to adoption of the Fifth Agreement. The producer's original insistence was for a buffer stock doubled in size to 40,000 metric tons of tin or its cash equivalent through mandatory contributions from producers and consumers alike. Throughout the negotiations the United States steadfastly opposed any requirement in the Agreement for mandatory consumer contributions. Only in the interest of averting a collapse of the negotiations was the present provision for voluntary consumer contributions adopted.

In his letter transmitting the Fifth Agreement to President Ford on April 30, 1976, Secretary Kissinger stated, "the United States has made clear that, should it join the Fifth International Tin Agreement, it would not make a voluntary contribution to the buffer stock." Similarly, when President Ford sent the Agreement



to the Senate on June 23, 1976, seeking advice and consent, he stated, "Both during the course of the negotiations of the Fifth International Agreement and since that time, we have made clear that, should the United States elect to join, we would not make a contribution to the buffer stock."

There has obviously been a change of mind signaling a change of course. We, however, know of no new or more persuasive arguments in favor of a United States contribution than were originally advanced and rejected during the negotiating sessions. We are, therefore, at a loss to explain this change of course unless what we are seeing is a classic case of the camel and the tent. It is perhaps idle, but nevertheless interesting, to speculate as to the status of United States participation had a United States contribution been advocated at the time of the ratification hearings.

The argument goes that a 40,000 ton buffer stock could stem a drastic price decline and enable a defense of the floor without resort to export controls. Then in a period of rising prices the additional tin would permit a proper defense of the ceiling. The ceiling defense argument does not withstand the scrutiny of history. It is not supported by the record of price behavior during the 1973-1974 period of production shortfalls during which there were massive sales of GSA stockpile tin. In Figure 3. the cumulative tonnage of GSA disposals is represented by the dotted line. The solid line represents the



average monthly New York Prompt, price of tin. It can be seen that in the thirteen months from June, 1973 through June, 1974 the GSA sold over 41,000 long tons of tin. During this same period of time the price of tin more than doubled, escalating from \$2.09 per pound in May, 1973 to \$4.63 per pound in July, 1974. While not shown on the chart, it should be remembered that within this same time period there was also the liquidation of over 10,000 tons of buffer stock tin holdings. In short, 50,000 tons added to the pool of tin availability, did not do the job.

It may, of course, be suggested that there is a difference in the effectiveness of a buffer stock sale versus a GSA sale. We do not accept, and hope that the Committee would question, any suggestion that secret transactions entered into by the buffer stock manager would redound to the benefit of consumers, particularly United States consumers, more positively than open, publicized transactions carried out by the Administrator of the General Services Administration.

In our opinion, the original objections to participation in the Tin Agreement were, and continue to be, valid. None of the Agreements, including the Fifth, benefitted consumers as generously as it has benefitted producers. Despite this history of denial of consumer concerns it is now suggested that the United States, the largest consumer member, and, therefore, the



one most aggrieved, make a voluntary contribution to the buffer stock. It would be bad enough, but somehow more understandable, if consumer contributions were mandatory. That they are not is because the United States, together with other consumers, prevailed against them. Based upon the evidence we fail to see how this proposal would be in the best interest of the United States or the domestic tin consumer.

It might be well to look at the practical and realistic aspects of a tin contribution. If tin were to be transferred to the buffer stock today the manager would be required to sell the tin immediately, thereby increasing his cash holdings for which he has no foreseeable use. And the United States will have made a gesture, about a \$55 million gesture, signifying little more than we are "good sports" or that "being in the Club we pay our dues."

One can only speculate as to the effect of a buffer stock sale on the market. The presumption is that market prices would moderate as a result of having minimized the strategic shortfall. But the market effect, whatever it might be, would be at least as telling if the 5,000 ton sale were made instead by the GSA.

Assuming that tin is available for disposal, a GSA sale is precisely what we would recommend. But with the added stipulation that any tin metal disposed of be for domestic consumption



only. There are several benefits to such an approach. Tin, if it is indeed in short supply, would be made available to United States consumers. Revenue from the sale would be in the hands of the Government and available for funding acquisitions of other strategic materials now short of stockpile objectives. The funds would not reside in the buffer stock. Then, if at some future time prices were to fall, or come within the lower sector of even higher buffer ranges, United States consumers and the domestic economy would not be treated to the specter of United States funds being used in gratuitous support of foreign tin prices.

On the broader subject of international commodity agreements, the Tin Agreement is often cited as the model after which other such agreements might be patterned for other commodities. If this is so then we have grave concern for those other commodities. The Tin Agreement has an enviable history of survival; its record of success is open to question. Despite record high prices tin production continues to lag consumption by 15,000 to 20,000 tons per year. The aggregate shortfall over the last 15 years has been well over 150,000 tons. Investment in production lags, we are told, because the floor price has never been high enough to stimulate investment. The floor price has become an investment criterion simply because it exists. Meanwhile, revenues to the producers and taxes, royalties and tributes to the producer countries have been enormous. In all this, the consumer has been heavily burdened and poorly served.



We are told by some that international commodity agreements are the wave of the future, the representation of a new economic order, and in the spirit of international accommodation. In this prospect we take little comfort. Because once in effect, the Agreement will dominate the commodity, its markets and its consumers. Old investment guidelines are abandoned for new investment guarantees. Tested business judgments succumb to the temptations of buffer price juggling. Commercial decisions become hostage to Council deliberations. Under the treaty shield Council delegates will do what corporate directors would not dare.

Based on the evidence, the United States should resist the further involvement that a buffer stock contribution would represent. It is our recommendation, Mr. Chairman, that your Committee reject the proposal contained in this legislation. In so doing you will be playing a significant role in stemming the drift toward further United States involvement in international commodity agreements.

In testimony prepared for the Senate Committee on Foreign Relations in 1976 we expressed the opinion that the Tin Agreement represented the embodiment of an alien concept whose time, at least for the United States, had not yet arrived. The events of the past year and one half have done nothing to alter that view.

Mr. Chairman, with my thanks to you and your Committee for this opportunity, I conclude my remarks.



COMPARISON OF PRICE INDICES  
TIN, ZINC and COPPER  
INDEX: 1956 = 100

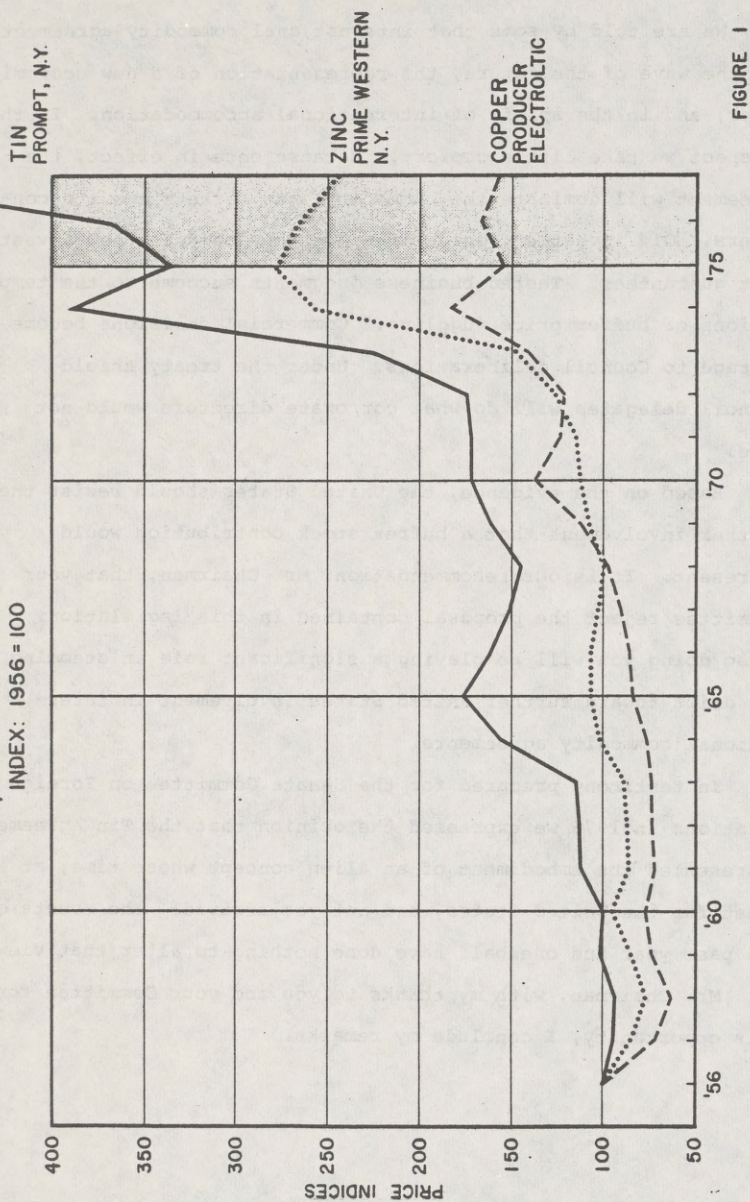


FIGURE 1



COMPARISON OF PRICE INDICES  
TIN, ZINC and COPPER  
INDEX: 1956 = 100

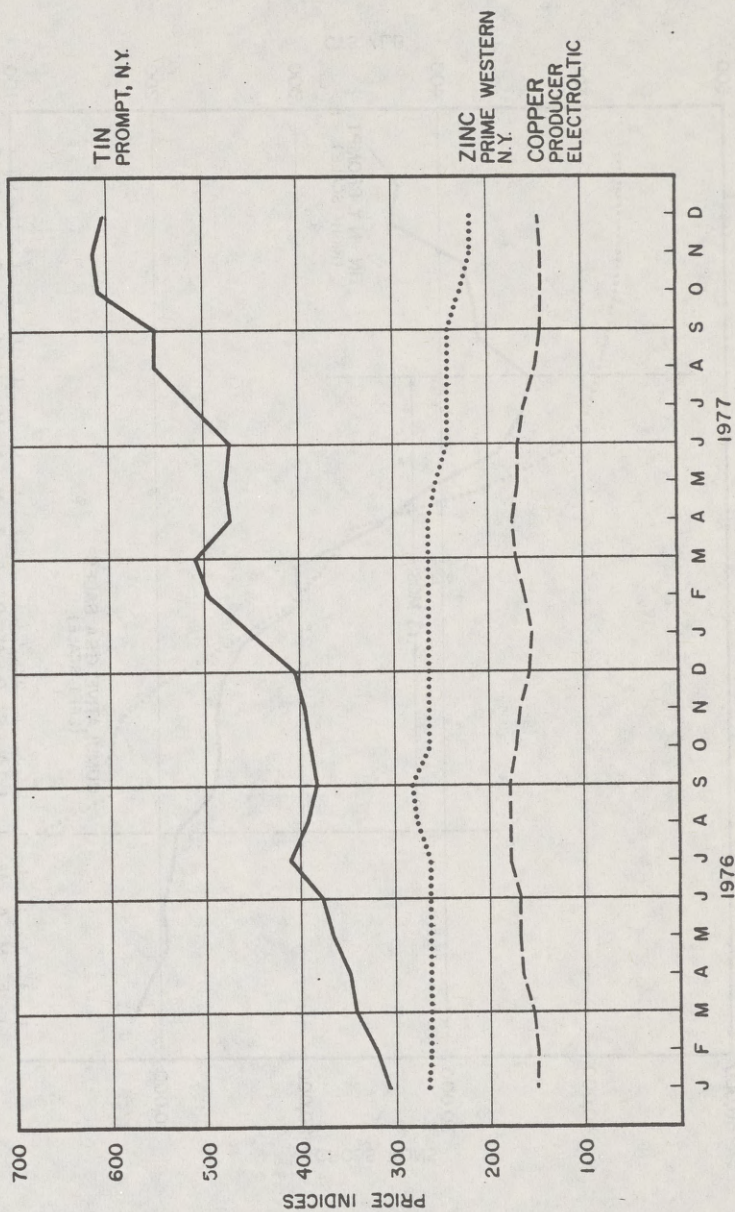


FIGURE 2



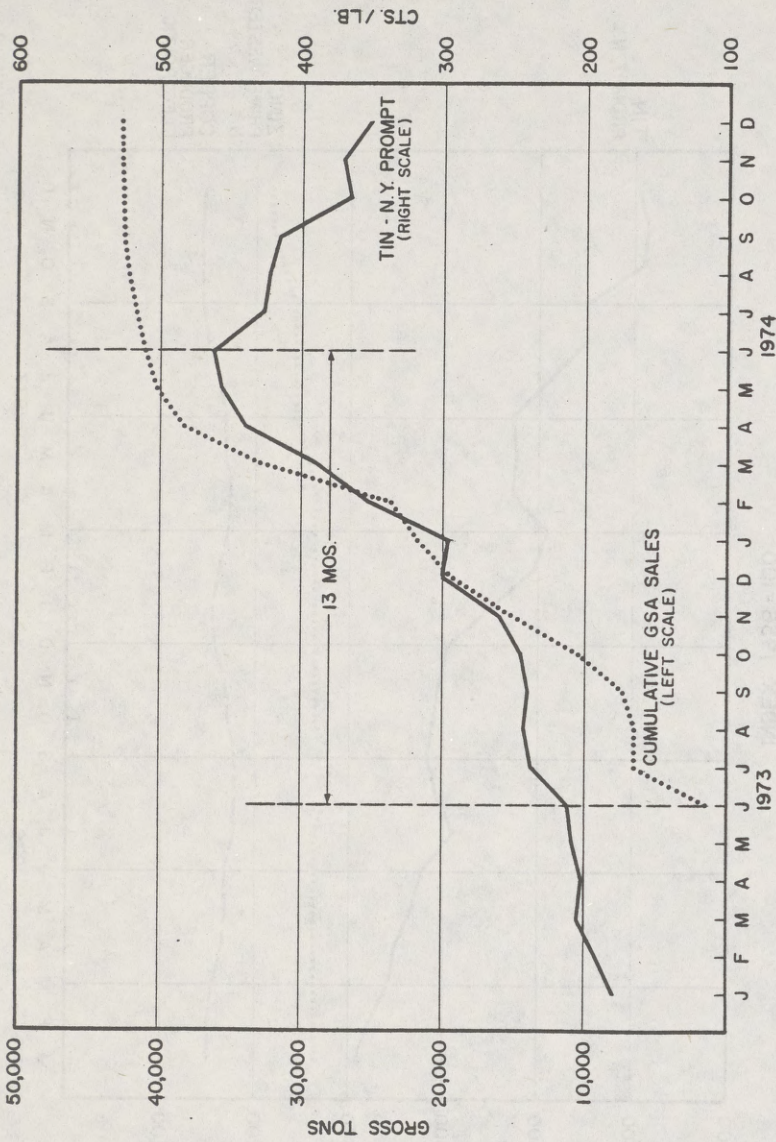


FIGURE 3



The Committee of Tin Mill Product Producers supports tin disposal legislation for the basic reason that the disposal of tin from the strategic stockpile represents the only possible short-term hope of alleviating the statistical shortfall and bridging the gap between consumption and production.

According to the International Tin Council the annual world shortfall has been running, and is expected to continue for some time, at the rate of 15,000 to 20,000 metric tons. We support this legislation because it will enable the United States to once again accomplish what the International Tin Agreement has failed to do; that is, balance supply with demand.

We would like it understood that we do not support this disposal legislation because, or even in the hope that, it will bring about lower tin prices. Any advocates of disposal having this goal in mind need only ponder the events of 1973 and 1974 when the price of tin more than doubled during the time that 41,000 long tons of GSA tin were being sold. Our position is that, regardless of what might or might not happen to prices, a start should be made in minimizing, if not eliminating, the persistent shortfall.

We have no position on the two slightly differing revolving fund concepts which appear in S. 2575 and in the proposal of Congressman Bennett's bill, H.R. 4895, now before your committee. We must admit, however, that the concept does appear sound and has a distinct appeal given the fact that the overall stockpile has some commodities in excess of supply while others remain short of current objectives.

We, however, are content to leave to the Congress and the administration the reconciliation of the divergent underlying philosophies relating to the handling of revenues from stockpile disposals.

Your committee, Mr. Chairman, recognizes the distinction between authorization or release and disposal or sale. It is our understanding that the release authorization may proceed unilaterally from the Congress. The actual sale, however, may be a bit more involved because as a member of the International Tin Agreement the United States is obliged to consult with the Council regarding its disposal plan.

What we appear in support of here today is only the first necessary enabling step—congressional authorization of the release from the strategic stockpile of a certain, yet to be determined, tonnage of tin metal. As a first consideration, the tonnage should be clearly excess to current stockpile objectives or requirements. As a second consideration, and given the difficult and time-consuming process of legislating that authorization, the release should cover something more than the anticipated shortfall of only 1 year.

We, therefore, urge legislation which would release for disposal at least 30,000 long tons of tin. A third and mandatory consideration should be that all actual sales pursuant to any authorized release be for domestic consumption only. In connection with this last consideration we are troubled by the barter provision in several of the proposed bills. Without some clarifying language we see the barter of tin as synonymous with permitting its export for foreign consumption.

Mr. Chairman, without choosing among the several pieces of pending legislation we, therefore, recommend to the favorable consideration of your committee the authorization to dispose of upwards of



30,000 long tons of tin metal from the strategic stockpile for domestic consumption only.

Mr. Chairman, on behalf of the Committee of Tin Mill Product Producers of the AISI and with my personal thanks to you I conclude my remarks.

Senator HART. Thank you very much, Mr. Ferrigan.

I take it it is your position then that you support and advocate the passage of S. 2167. I think the amount that you are advocating for sale is the amount contained in that bill.

Mr. FERRIGAN. Yes.

Senator HART. That is the sale of tin, acquisition of copper proposal.

Mr. FERRIGAN. One of the things I see about S. 2167 is that it does not say anything about being disposed of domestically. I think the same thing by pure coincidence, applies to the purchase of copper. The presumption, of course, is that it is going to be domestic copper and I am sure that everyone here hopes that it is but it does not say so.

Senator HART. That issue was raised yesterday by the principal sponsor of the legislation and my recollection is that that would be so.

One other question. Do you believe that we could dispose of more than 30,000 tons of tin over the next 2 years without disrupting the market?

Mr. FERRIGAN. Well, theoretically we should be able to dispose of as much as the statistical shortfall represents. That would prevent the drawing down of any stocks and it should not be disruptive of the market or be of concern to the Tin Council. With those tonnages we would match the imbalance and there would be no statistical shortfall. I really think that we might have some difficulty with the Tin Council, or the delegation might have some difficulty with the Tin Council, in trying to convince them of the necessity of more than that much tin.

Senator HART. Thank you very much, Mr. Ferrigan.

Mr. FERRIGAN. You're welcome.

Senator HART. At this point we will take a 5-minute break, not to exceed 5 minutes, and return to testimony from Mr. Leonard Powell.

[Whereupon, a short recess was taken.]

Senator HART. We will now hear from Mr. Leonard Powell representing the Anaconda Co.

Welcome, Mr. Powell.

#### STATEMENT OF LEONARD C. POWELL, VICE PRESIDENT, ANACONDA CO.

Mr. POWELL. Mr. Chairman, my name is Leonard Powell. I am a vice president of the Anaconda Co., a wholly-owned subsidiary of Atlantic Richfield Co. Prior to assuming my present duties at the newly formed Mineral Resources Group headquartered at Denver, I was in charge of all of Anaconda's mining, milling, smelting and refining operations in Montana.

I appreciate this opportunity to appear before the subcommittee today and express our thoughts regarding the distressed condition of the domestic copper industry and a national copper stockpile.

Although the national economy remains strong and the consumption of copper is reasonably good, the U.S. copper industry is experiencing its worst economic period since the Great Depression.



The domestic producers price for cathode copper is now lingering at 61½ cents per pound, as compared to this decade's high of 85 cents per pound in 1974. The essential causes of the present depressed price are a high inventory level and increased imports of copper by foreign producers. In 1976, imports of refined copper totaled almost 20 percent of our domestic production, and last year's import total is expected to exceed that amount. This compares with an import level of only 9 percent in 1970-75 period.

It has been estimated that the average production cost for domestic companies is 75 cents per pound of refined copper. With the domestic price at 61½ cents, it is obvious that severe economic adjustments are necessary by the industry. During the latter portion of last year, nearly all domestic operations shut down or curtailed production to some extent. At one point, nearly 12,000 copper company employees lost their jobs or were laid off for more than 6 weeks. That constituted one-fifth of the industry's total work force. While many workers have since been called back to work as mining was resumed at various locations, there were still about 5,000 persons out of work in the copper industry at year's end; and that number may be growing.

Four mining operations in Arizona are completely shut down and others are operating at less than capacity. At least one large project has been shelved, and it is obvious that new mining ventures or expansion programs are not feasible under today's conditions in the domestic copper market.

We also see indications that exploration programs are being curtailed, which means a lessened search for new copper deposits in the United States.

In fact, most of the principal financial investments that will be made by major domestic companies probably will involve expenditures for environmental controls. This is not money spent for new plants or expanded production or new jobs. It is spent to comply with environmental requirements that have imposed a substantial financial burden on domestic producers.

It has been estimated that the cost of environmental compliance in the United States is equivalent to 10 cents per pound. This is a cost major foreign producers in Africa and South America do not have to bear.

Our company, Anaconda, has been forced to make the same adjustments as the other domestic producers. In August, we closed the Victoria Mine in Nevada. At the end of the year, sulfide operations were terminated at our Yerington Mine, also in Nevada, and oxide operations at the Yerington property will cease this summer which will result in a complete closure of the mine.

In Montana, we closed the Arbiter Plant, a hydrometallurgical refinery at Anaconda, and the dump leaching operations at Butte also were terminated. The underground mining operations at Butte had previously been shut down. We will close down the Anaconda smelter during May and June and when operations resume in July they will be on a reduced basis.

Our urgent need to reduce costs to the lowest point possible has required substantial reductions in our work force. In 1974 we had



3,600 employees in Butte, Mont.; today, that figure has been nearly cut in half. With other reductions at Anaconda and Great Falls, the job loss at our Montana operations since 1974 exceeds 2,200 employees curtailed.

While that figure may seem small on a national scale, it has a severe impact in Montana and in the communities of Butte, Anaconda, and even Great Falls, Mont., it becomes critical.

However, despite these reductions and all other efforts to reduce expenses, our operation costs exceed the price of copper and our Montana properties are operating at a direct financial loss.

I believe this points out a significant threat to our national interest. If foreign producers continue their operations at current levels without regard for high inventories and the need to adjust to market realities, the prospects are poor for price improvement, and more and more producers in the United States will be required to curtail operations or close completely. This lost capacity would be replaced by foreign imports.

It should be stressed that mining capacity cannot be easily turned on and off to meet market fluctuations. In some cases, an abandoned mine can never be opened, such as an underground property when the workings are allowed to flood.

As for starting up new mines, where the deposit is thoroughly evaluated and investment capital is available, it would take about 5 years to bring an underground mine on stream. It takes about 3 years to bring in an open pit mine on stream, although the time could vary depending on stripping requirements and other conditions. To expand production at an operating mine requires a certain leadtime for delivery of heavy equipment. If other producers are expanding and placing orders on the same manufacturing facility, the leadtime becomes even longer.

In all cases, we have the added problem of manpower. It can be difficult to rebuild a skilled labor force, particularly at some of the remote locations where mines operate. This is particularly true if skilled underground workers are required.

In view of these problems, the United States should not be allowed to become dependent on foreign nations for our supply of copper, a metal that is critical to our defense and national needs. There is a definite need for a strategic stockpile of copper. I would like to point out that a goal of 1,299,000 tons of copper has been approved by the administration for the national stockpile. As of now, there are only about 20,000 tons in the stockpile.

I strongly support S. 2167 sponsored by Senator Domenici as a logical first step in a copper stockpile program. It has several benefits, including the fact that the purchase of copper would be financed by the sale of tin. I urge the approval of this bill and such further legislation as may be required to authorize additional purchases and build the level of the copper stockpile to its approved goal.

That completes my testimony, Senator.

Senator HART. Thank you very much, Mr. Powell. We appreciate your time and your trouble in appearing before this committee and certainly take your testimony under serious advisement.

One question is the lingering one with regard to all the testimony affecting this problem and that is your judgment as to the effect that



a purchase of the size contemplated in this legislation would have on the overall health of the industry.

Mr. POWELL. My position and our company position, of course, is the same as that of the American Mining Congress stated by Simon Strauss. There is one facet that has not come forward and that is a general number. An average employee produces about 30 tons of copper year so when you consider that against a 250,000 ton stockpile it is a significant effect; it is equivalent to about 8,000 employees for 1 year.

Senator HART. That is a figure I don't think anyone else has raised and I think it is very helpful.

Thank you very much. I will look forward to seeing you out in Colorado.

Mr. POWELL. Thank you.

Senator HART. I want to welcome my colleague, Senator DeConcini, from Arizona and my good friend and colleague, Congressman Udall, also from Arizona—two of the finest public servants I know of both in terms of their interest in the public interest and their service for their constituents and their leadership on the specific question of the health and future of the copper industry in this country.

Gentlemen, you are welcome to the subcommittee. The floor is yours for any statement that you care to make.

#### STATEMENT OF THE HON. DENNIS DeCONCINI, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator DeCONCINI. Gary, I will submit a statement because of your time. I will be editing it slightly and I will leave it here.

I would like to thank you very much at this time for holding these hearings timely.

Congressman Udall will have a few remarks, I know. We are introducing somewhat similar legislation today that approaches it a little bit different. The bill we have introduced I don't think it will find any great conflict in what the testimony is today—it authorizes the sale of 45,000 tons of tin and the purchase of 225,000 tons of copper. It is in the Nation's best interest, it is not—and I hope not considered any kind of just a way to help out the copper industry.

The administration is supportive of our legislation and you will hear testimony today, I am advised, in support of it for the national interest. Needless to say for Arizona and other copper producing States than Arizona, we have some 8,000 unemployed. It will be significant psychologically and also in the area of taking some of the overhang in excess of 1 million tons off the market so I greatly appreciate your commitment last year on the floor to hold these hearings and following through with the great amount of time and effort and interest that you have devoted to this matter. I know you have plenty of other things to take up, too, but this is so vital to the West and our industries that we appreciate the tremendous days that you are putting in on this.

[The prepared statement of Senator DeConcini follows:]

#### PREPARED STATEMENT OF SEN. DENNIS DeCONCINI

Mr. Chairman, on behalf of my distinguished colleagues, Senators Cannon, Domenici and Paul Hatfield, I am introducing legislation which both meets



our national security requirements and which provides desperately needed assistance to the American copper industry.

The legislation has the full endorsement and support of the Carter Administration. We worked closely with the Administration in developing the language to suit the priorities and procedures they are anxious to follow in matters affecting the treatment of copper and the strategic stockpile. We believe, and the Administration concurs, that this legislation is in the best interest of the nation.

The thrust of the bill is to provide the Administrator of the General Services Administration with the authority to dispose of certain items in the national stockpile of which there is an excess over the established goals and to allow him to add materiel that is deemed necessary for national security reasons but which is currently not held. It should be noted that this approach was originally suggested by S. 2167, introduced during the first session by Senator Domenici.

Under our bill, the Administration is authorized to dispose of up to 45,000 long tons of tin for the purpose of obtaining copper. As the legislation is written, the Administrator is empowered either to sell or barter the tin. Since the legislation also contains safeguards against any potential disruption of the tin market, the Administrator will be able to choose, given market conditions, whether it is more advantageous to barter tin directly for copper or whether tin should be sold. In the latter case, we anticipate that the Administration will require authority from the Appropriations Committee to actually purchase the copper. Because of the flexibility built into the bill, the Administrator, in all likelihood, will combine both methods.

The legislation further empowers the Administrator of the General Services Administration to purchase copper in an amount not to exceed 225,000 tons. This figure represents the best thinking of the Administration at this point as to the real needs of the nation in an emergency. I do not believe that any of us wish to see the national stockpile subject to the sort of abuse and manipulation that has occurred in the past. To prevent that, it is better to be cautious. This Administration while anxious to assist Arizona and the other copper-producing states, has wisely chosen to purchase only the absolute minimum amount of copper necessary.

I believe, Mr. Chairman, that if enacted quickly this legislation will not only serve the needs of national security; it will measurably and significantly benefit the American copper industry. That industry has been beset by a series of difficulties that have left many mines closed and thousands of workers unemployed. In my own state, Mr. Chairman, approximately 8,000 persons have been laid off, some permanently. Some of the immediate hardship has been relieved by trade adjustment assistance, but that is not a solution, only a palliative.

Although there is a surplus of approximately one million tons on the world copper market, the long-term outlook for copper is good. Demand is growing following the recent worldwide recession. If the Administration is able to purchase the full amount of copper authorized in this legislation within a reasonable period of time, I believe that it will have a very significant impact on the price of copper. Among other possibilities, it will reverse the tendency among buyers of copper to withhold purchase orders in the anticipation that the price will drop further. Clearly, with the United States Government as an active purchaser of copper, the present market psychology will change.

The President of the United States has, by endorsing this legislation, discharged his obligation to protect the national security while simultaneously demonstrating keen sensitivity to the unique problems facing the western states. I know I speak for my colleagues on both sides of the aisle in applauding this action.

Senator DeCONCINI. Congressman Udall, would you care to submit a statement?

#### STATEMENT OF THE HON. MORRIS K. UDALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Representative UDALL. Yes, I have a statement and I will submit it. I just want to say a couple of things in addition. One thing is that



Senator DeConcini and I view these hearings as a major event. The copper industry is in the worst situation since the 1930's. This is not the total answer but it is part of an answer. I know your concern about developing a comprehensive stockpile program that really works in the national interest does not result in sort of ad hoc reactions to particular events and particular industries. It is important to the country that we get an overall program but you attend to the sick or those in danger of dying first and then worry about a national health plan after that.

I would hope that you would be able to assist us in focusing right now, this year on the problems and programs of the copper industry.

The breakthrough that I think we have made with the bill that the Senator will introduce on this side and I will introduce with a large number of western Congressmen in the House this afternoon is that finally we have the administration support of something specific to aid the copper industry. I have always felt that we had to make this fight and that we could go on ahead with it and perhaps have a good chance of success. In the final analysis if the administration decides from the foreign policy consideration, economic and fiscal problems that they could not support a specific bill, we are going to have a rough road. The breakthrough today is that the administration from the President and Vice President on down have assured us that this bill we are introducing will have that support and the President will be pleased to sign it.

So I congratulate you and I urge you onward and upward on these hearings. This is important to all of us in the West.

[The prepared statement of Representative Udall follows:]

#### PREPARED STATEMENT OF REPRESENTATIVE MORRIS K. UDALL

Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear before this Committee this morning on a matter that is of utmost importance to Arizona as well as to many of the other western States.

I will not take up the valuable time of this Committee in outlining in any detail the depressed condition of the domestic copper industry. It is sufficient to say that due to uncontrolled imports and low prices the domestic copper industry has been very hard hit. Mines have closed, 10,000-12,000 workers were unemployed last summer and the price of copper has recently declined to about 60¢ per pound.

Today, I am introducing a bill which has the backing of the White House and which I sincerely hope will tend to stabilize the price of copper and bring some measure of relief to this industry.

This bill would authorize GSA to sell up to 45,000 tons of tin, excess to our needs and use a portion of the receipts from such sale for the purchase of up to 225,000 tons of copper.

The receipts from the first 5,000 tons of tin sold in 1978 and the first 10,000 tons of tin sold in 1979 would be covered in the Treasury. But the important point is that the receipts from the sale of 26,000 tons of tin would be used to purchase the 225,000 tons of copper. There is also provisions for the sale of 6,000,000 pounds of tungsten.

I think this is a good bill. It is not all that we in the copper states had hoped for. Frankly it is a compromise.

The other point I want to emphasize is that this bill is not to bail out the copper industry. Without doubt we hope it will help that industry. The goal of the copper stockpile is 1,299,000 tons. There is less than 20,000 tons now in that stockpile. This bill would authorize one purchase of 225,000, or a small first start to rebuilding the copper stockpile to its authorized goal.

Mr. Chairman, I thank you for your time and I hope you and your Committee will give favorable consideration to this proposal. As you know, Senator DeConcini is introducing an identical bill in the Senate today.



Senator HART. Thank you both. I think in this case we have a situation where we can have national health insurance and take care of the sick and wounded at the same time and we intend to do that with as much expedition as we can. That is the reason for these rather lengthy hearings the last 2 days and consideration of the range of stockpile legislation that we have.

My concern last year when this measure was brought to the attention of the Senate was that we should not piecemeal it, that we had to have comprehensive legislation in which this could be part and, second, that we had to have an administration position. I don't want to be critical of the administration but I think coming into office this is a matter that started out rather low on the totem poll in terms of attention. We did manage last year, I think, to focus the administration's attention on the overall problem and I think the culmination of that is in the appearance of administration witnesses yesterday as well as the apparent support which the administration has given to your bill here today.

So with that kind of breakthrough I think we are prepared to go forward as quickly as possible.

I know our colleague on the House side, Congressman Bennett, has passed a bill. We want to get one out of here as soon as we can and hopefully look to this particular problem in the process, and then reconcile those two bills. We want to get some legislation out of the Congress as soon as possible.

I want to thank you both for appearing.

Senator DeCONCINI. Thank you, Mr. Chairman. We appreciate it.

Senator HART. I would like to now ask Mr. Lowell Hoffman representing the National Can Corp. to give us his statement for the subcommittee.

**STATEMENT OF LOWELL M. HOFFMAN, VICE PRESIDENT,  
NATIONAL CAN CORP.**

Mr. HOFFMAN. Mr. Chairman, members of the committee, my name is Lowell M. Hoffman, and I am vice president of materials for National Can Corp., headquartered in Chicago, Ill. Today I am speaking on behalf of the Can Manufacturers Institute, whose members comprise approximately 90 percent of all metal can production in the United States. Sales of the can manufacturing industry exceed \$7 billion annually and, through our purchases of tinplate for canmaking, account for in excess of 35 percent of annual tin usage in the United States.

In the interest of brevity, I shall deviate from my prepared remarks, but ask that they be submitted for the record.

The committee today is assembled to consider a most important subject. I shall, therefore, succinctly outline my personal concerns and those of the industry which I represent.

First, I applaud you, Senator Hart, and others who join you in sponsoring S. 2575, which would seek to restructure the Strategic and Critical Materials Stockpiling Act, and to provide a new sense of management to this national resource.

I think management is a key word here. The act needs to allow flexibility and responsiveness to changing requirements, changing international situations, and changing strategic purposes.



In this respect, I have a personal concern that the 3-year provision in section 10(c) may be too short a period. Instead a longer period of time—say 5 years—might give the act a better chance to work and might help avoid premature return of funds to the Treasury for reasons not in tune with the purposes of the act.

We, in the can manufacturing industry support this bill, and also support a similar bill, H.R. 4895 which has, I understand, passed the House.

A second, and very important area of concern to our industry, is both the supply and price of one of the materials now in surplus in the stockpile, tin.

As I have mentioned, our industry accounts for the end use of more than 35 percent of domestic tin consumption in the form of electrolytic tin coated steel known as tinplate and another 1 percent in the form of solders. Our interests, therefore, are substantial and direct.

A very high percentage of our tinplate usage is for food cans—thus higher tin prices are transferred directly to tinplate prices and thence to cans which directly affect all consumers of canned food products.

I have calculated that a \$1 per pound increase in the price of tin is translated into metal cost increases of up to 5 percent which is, I submit, a significant increase. This is especially true when one recalls that tin has increased in price by in excess of \$2 per pound in the past 2 years.

It is generally acknowledged that a world shortfall of production versus requirements of 20,000 metric tons per year existed for 1977 and is expected to exist for the next 2 years. With shortage of supply one eneorably expects higher prices.

In this case our industry has no short-term alternative to tin and must pay the price. While stockpile sales of tin might not reduce market prices, it would tend to prevent further sharp increases and would make needed tin available. With these economic interests in mind and with careful consideration, I would like to go on record in favor of the following actions:

First, enactment of S. 2181, the administration bill to contribute an estimated 3,500 tons or up to 5,000 tons of tin to the International Tin Council buffer stock, but with the express proviso that such tin be made available to domestic users of tin.

Second, enactment of the most suitable bill before this committee for consideration which would insure the orderly, yet timely, release of 30,000 metric tons of tin to domestic users.

Senator Domenici's bill S. 2167 would appear to accomplish this purpose admirably.

These two actions taken concurrently would stabilize tin prices, would insure sufficient supply of tin to the U.S. consumer and would provide a source of funds for the purchase of other materials required for the stockpile.

In closing, I would like to add one additional observation.

Disposition of 30,000 tons of tin at current price levels would produce revenues on the order of \$360,000,000.

I would point out that is \$360 million would be staying in this country rather than flowing out of the country, thus our balance of payments would be improved by this not insignificant amount and our dollar accordingly strengthened.



I respectfully encourage your timely approval of these actions and I thank you for your consideration in allowing me to contribute in this way to your decisionmaking process.

Mr. Chairman, I would like to submit my prepared statement for the hearing record.

Senator HART. Without objection, the prepared statement will be entered in the hearing record at this point.

[The prepared statement follows:]

PREPARED STATEMENT OF LOWELL M. HOFFMAN, VICE PRESIDENT OF MATERIALS,  
NATIONAL CAN CORPORATION, CHICAGO, ILL.

Mr. Chairman, I am Lowell M. Hoffman and I am Vice President of Materials for National Can Corporation, headquartered in Chicago, Illinois.

Today I am speaking on behalf of the Can Manufacturers Institute, whose members comprise approximately 90 percent of all metal can production in the United States. Sales of the can manufacturing industry exceed \$7 billion annually.

The committee today is addressing a number of complex and critical matters involving U.S. strategic and critical stockpiles which affect virtually everyone in the United States. We in industry recognize the importance of adequate supplies of critical materials in our national stockpile and applaud Senator Hart's efforts to revise and improve the Strategic and Critical Materials Stockpiling Act through the introduction of S. 2575.

Of key importance is the establishment of a special stockpile fund which would enable the Congress to analyze our needs better and control the stockpiles. The fund also would serve to insure that the stockpile is employed for intended purposes only.

We do, however, have some reservation with regard to Section 10(c) which allows that excess funds after September 30, 1981 would automatically be transferred to the Treasury. Such a provision may permit budgetary manipulation of the stockpile. Perhaps an amendment which would increase the sunset date to five years, with a provision for Congressional approval before funds could be reverted to the Treasury, would provide the assurances needed to guarantee the integrity of the fund.

We recommend that the committee move to adopt S. 2575, or H.R. 4895, a similar measure introduced by Congressman Charles Bennett of Florida, which already has passed the House of Representatives.

I wish now to address the balance of my remarks to a matter which is of particular importance to the Can Manufacturers Institute—tin. The can manufacturing industry is a major consumer of tin, using approximately 20,000 tons in 1977 or some 35 percent of domestic consumption. As important consumers, we are heavily dependent upon adequate supplies of tin at stable prices.

Mr. Julius Katz, Assistant Secretary of State for Economic and Business Affairs, testified last month before the House Subcommittee on International Economic Policy and Trade regarding the world tin situation. Speaking of the persistent imbalance between tin metal production and consumption, Mr. Katz stated:

In 1977, the gap between current world tin metal production and consumption was approximately 20,000 metric tons, a figure which is not expected to decline appreciably in 1978. This deficit will persist at least until 1980 and will generate continued pressure on tin prices, in the absence of infusions of metal into the market from the GSA stockpile and other sources. While the average New York price in 1972 was \$1.77 per pound, the latest price is around \$5.30 a pound.

As is evidenced by this statement, the United States will experience even higher prices in the next several years without prompt action to dispose of surplus tin from the GSA stockpile.

There are currently two bills before this committee which seek to ameliorate current tin scarcities through the timely release of tin from the GSA stockpile: S. 2181, the Administration's proposal to contribute tin to the ITC buffer stock; and S. 2167, Senator Pete Domenici's tin/copper bill.



The Administration's proposal calls for the contribution of up to 5,000 tons of tin from U.S. stockpiles to the International Tin Agreement buffer stock. While there is not unanimity in our Institute as to whether this proposal is the best method for aiding the American tin consumer, it is an approach that should be examined carefully.

We at CMI would be willing to support such a proposal if there were reasonable assurances that the tin contributed would be sold on the U.S. domestic market, and that other measures to provide relief also would be undertaken.

The Administration's proposal, in and of itself, will not assure adequate supplies of tin at reasonable prices.

The Domenici bill, S. 2167, which authorizes the sale of 30,000 tons of tin, and the purchase of 250,000 tons of copper, would provide immediate relief from the present unusually high price of tin. Such a measure would go far to offset the shortfall between world production and consumption which is expected to prevail for at least two to three years, as well as to stabilize prices.

Current U.S. stockpiles of tin are roughly 201,000 long tons of tin. Taking into account Department of Defense recommendations for a three year target of 32,499 long tons, we are left with a surplus of over 168,000 tons of tin. In its recent Annual Materials Plan, the Government Services Administration recommended the timely release of 25,000 tons of tin from the stockpile. Thus, Senator Domenici's proposal is consistent with GSA thinking with regard to tin disposal.

Mr. Chairman, both producers and consumers of tin agree that some action must be taken now to bring the price of tin down to reasonable levels. Producers and consumers also agree that the release of up to 30,000 tons of tin from the GSA Stockpile, for domestic sale, would be the most effective and least disruptive means of accomplishing this goal. I am confident, therefore, that members of this committee will examine the proposals before them and vote to give relief of the tin consuming industries of this country by approving S. 2167.

I thank you very much for your consideration.

Senator HART. Thank you, Mr. Hoffman. I take it from what you said that you don't believe the administration proposal on the tin buffer stock is incompatible with the Domenici proposal.

Mr. HOFFMAN. I do not. I think that the two could help one another and, again, our interest is that the tin go to the domestic users and that is what it should do.

Senator HART. On the comments on S. 2575 I appreciate your suggestion about extension of the so-called sunset date. You have no trouble with the concept of a sunset provision in that legislation?

Mr. HOFFMAN. Myself, I do not.

Senator HART. It is just the time period involved. I think it is extremely important and one reason to put that in there is not only because the idea originated in my own State of Colorado legislatively but also I think it is an extremely helpful device for Congress to maintain and fulfill its responsibilities to oversee existing Government programs and some concept of the sort.

There is no magic date—3, 4, 5, 6 years, whatever—to force accountability on the administering agency as well as oversight responsibility on the Congress and so that is what the purpose of that is.

Mr. HOFFMAN. I think, again, "management" is the key word, and, again, time is one element of management.

Senator HART. Thank you very much, Mr. Hoffman. We appreciate it.

Mr. HOFFMAN. Thank you.

Senator HART. I would like to at this time welcome Mr. Harry O'Neill. Mr. O'Neill is executive vice president from the Opinion Research Corp.



**STATEMENT OF HARRY O'NEILL, EXECUTIVE VICE PRESIDENT,  
OPINION RESEARCH CORP.**

Mr. O'NEILL. Mr. Chairman, my name is Harry O'Neill. I am executive vice president of the Opinion Research Corp. in Princeton, N.J.

I am here at the request of the Institute of American Relations to report to you and your committee the results of a survey among the American public conducted at the beginning of May of last year in which we asked a number of questions of the public about their attitudes toward certain aspects of stockpiling and cartels.

I am not here to present my point of view toward the legislation or the issues but simply to summarize for you the results of that survey.

The complete question wordings and results are available to the committee.

Briefly, the result of the survey is that quite a few people have some awareness of the stockpiling issue. About three-fourths of the public have some awareness about it and about 9 people in 10 believe that stockpiling, both strategic stockpiles and stockpiles are important to the welfare and well-being of the country.

At least half of the public has some awareness of the whole issue of cartels, the countries can get together to control the production and the price of various commodities. Many, many people—about 8 people in 10—believe that these kinds of arrangements do present at least some threat to both the security of the United States as well as to the economy of the United States.

When we got into some specifics insofar as stockpiling is concerned, about 8 people in 10 support the general proposition of maintaining stockpiles of materials where supplies might be cut off or whose price might be sharply increased by some type of international cartel.

We specifically asked the public about the sale of materials from two of our strategic stockpiles; namely, the sale of silver from its stockpile and tin. Having first given the public some information about it and the pros and cons as they have been stated publicly and 7 people in 10 do oppose the sale of silver from the stockpile as currently proposed, about two-thirds of the public oppose the sale of tin from the stockpile as currently proposed.

That, Mr. Chairman, briefly are the results of the survey. More detail is available to the committee.

Senator HART. Mr. O'Neill, this is extremely interesting and I have never seen data of this sort before. Was this research conducted on behalf of a client?

Mr. O'NEILL. Yes, this was conducted on behalf of the Institute of American Relations.

Senator HART. Can you tell me who that is?

Mr. O'NEILL. The Institute of American Relations is a nonprofit organization that is dedicated, as I understand it, to research and the dissemination of information on certain aspects of the defense of the United States.

Senator HART. Now was there any other preliminary education of the sample than the questions asked here?

Mr. O'NEILL. Not other than what is asked here. The statements and the questions as presented in this document is exactly what was presented to the responding public.



Senator HART. Can you speculate—and I know you are reluctant to do that, or would you be willing to—about the number of Americans who are aware of the existence of a national stockpile in the absence of any statement of this sort.

Mr. O'NEILL. My speculation on that would be that it would be quite low.

Senator HART. Quite low. But once given even a simple factual background, then the awareness rises rather sharply.

Mr. O'NEILL. Yes.

Senator HART. At least for the need for a stockpile.

Mr. O'NEILL. Correct.

Senator HART. How would you characterize the concern of the average American or at least as represented by your sample over the general issue of cartels of cartelization of imported raw materials?

Mr. O'NEILL. I think people are quite concerned about it. I think the whole OPIC situation brought that to the fore and, therefore, I think that on that issue, people are quite well aware of what can happen.

Senator HART. Would you say that the average American is aware of the degree to which we import raw materials generally?

Mr. O'NEILL. Not with any great precision. They underestimate the importation of oil.

Senator HART. What also interests me here is what seems to be a deviation between your findings and, for example, the public awareness of an energy crisis. Can you reconcile those two? One of the problems we have around here legislating on energy is the apparent feeling on the part of many Americans still even in 1978 that a genuine or serious energy crisis does not exist. Your findings here, your data here, seems to vary from that somewhat. How would you account for that?

Mr. O'NEILL. I don't really see how you vary from that. It is true that people have had a very difficult time accepting that there is an energy crisis. They drive in and buy all the gasoline that they want—it may cost them more but it is still there. They see no particular energy policy coming out of Washington, they see a lot of pros and cons being discussed here. So the public has really been given very little evidence of late that there is a crisis per se and they have not accepted it.

Senator HART. I think they have been given a lot of governmental or political indication that a crisis exists.

Mr. O'NEILL. Very few others. They can do what they want to.

Senator HART. Very little market indication.

Mr. O'NEILL. Right.

Senator HART. Are you at liberty to tell us in any details about your example, the size of it?

Mr. O'NEILL. Yes. The size was 1,011 adults aged 18 and over representative of the adult population of the Continental United States.

Senator HART. Geographically contributed?

Mr. O'NEILL. Yes.

Senator HART. Did you find any regional variations here of any consequence?

Mr. O'NEILL. Not that I recall of any particular consequence.

Senator HART. The issue here, of course, one of them that is of interest, is the specific one having to do with silver. Would you care



to extrapolate from your data as to why people were opposed to the sale of silver?

Mr. O'NEILL. I have my own personal point of view about that and that is that people are quite concerned about the defense posture of this country. They are desirous of keeping a strong defense posture, they are not all that convinced that vis-a-vis some of our enemies' posture is as strong as it should be and I think this issue then is considered within that framework that this is a strategic stockpile, therefore, it has some bearing on our ability to be able to withstand even my attack or to survive in the case of a war and, therefore, they support not getting rid of the stockpile. That is my interpretation in a broader context.

Senator HART. Since this is the Armed Services Committee, I think that the broader question is also of interest to us. It is not accidental that the stockpile is under the care of this committee.

Have you noticed any changes in public attitudes toward defense generally or defense spending?

Mr. O'NEILL. I think that the public today believes to a little greater degree than they may have a year or so ago that we are not as strong as the public would like us to be vis-a-vis Russia, for instance. The public is supportive of defense spending to maintain either a superiority or at worst an equivalency.

Senator HART. Thank you very much, Mr. O'Neill. You have been very helpful.

Mr. O'NEILL. Thank you.

Senator HART. This poll I will insert in the record at this point.

[The poll referred to follows:]



## STOCKPILING AND CARTELS

Before asking any questions about the subject of stockpiling, the following statement was read to each respondent:

*"Now, let's talk about a different subject -- stockpiling. To be sure we are both talking about the same thing, a stockpile is defined as a supply of some material -- a metal, mineral, chemical, food, or anything else -- gathered and stored for future use."*

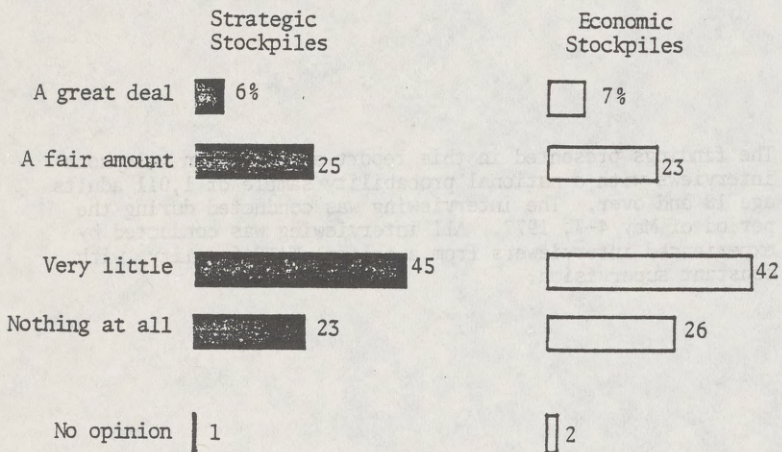
The findings presented in this report are based on telephone interviews with a national probability sample of 1,011 adults age 18 and over. The interviewing was conducted during the period of May 4-7, 1977. All interviewing was conducted by experienced interviewers from a central WATS facility, with constant supervision.



Awareness of the Stockpiling Issue

*"How much have you heard or read about the federal government maintaining strategic stockpiles -- that is, stockpiles of critical materials that would be needed for national defense if a major war occurred in the future? Have you heard or read a great deal about such strategic stockpiles, a fair amount about them, very little, or nothing at all?"*

*"How much have you heard or read about the federal government maintaining economic stockpiles -- that is, stockpiles of critical materials whose supply would be disrupted or stopped if there were major internal or international problems related to other countries or major price increases by other countries? Have you heard or read a great deal about such economic stockpiles, a fair amount about them, very little, or nothing at all?"*



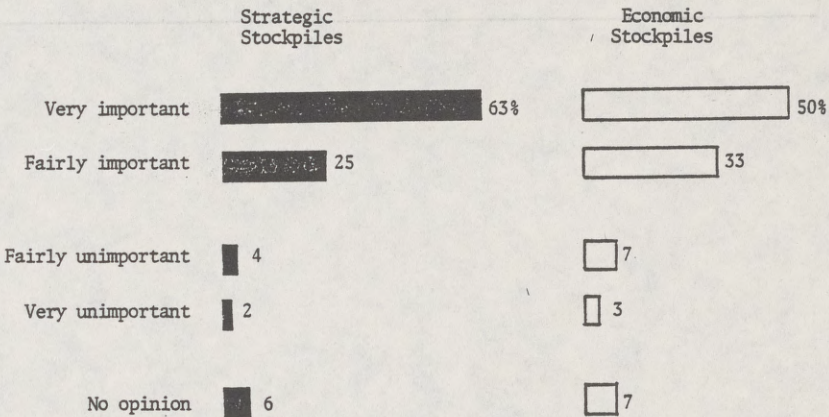
(Total Public: 1,011)



### Importance of Stockpiles

*"How important do you think it is for the government to have stockpiles of critical defense materials, many of which are imported from foreign countries and some of which are produced in the United States, that would be needed in case of a war -- very important, fairly important, fairly unimportant, or very unimportant?"*

*"How important do you think it is for the government to have such economic stockpiles of critical materials that are used mainly for industrial purposes, other than military ones -- very important, fairly important, fairly unimportant, or very unimportant?"*



(Total Public: 1,011)



Prior to any questioning about cartels, the following statement was read to each respondent:

*"Countries that have a natural resource that is in demand -- such as oil, silver, tin, and aluminum -- sometimes get together to limit competition and control the output, distribution, and the selling prices of their resource. For example, they can decide at any time to increase or decrease production; they can decide to increase or decrease prices. Such arrangements among countries are called cartels."*



Awareness of Cartels

*"How much have you heard or read about these kinds of cartels involving agreements between countries -- a great deal, a fair amount, very little, or nothing at all?"*

A great deal [REDACTED] 19%

A fair amount [REDACTED] 32

Very little [REDACTED] 34

Nothing at all [REDACTED] 15

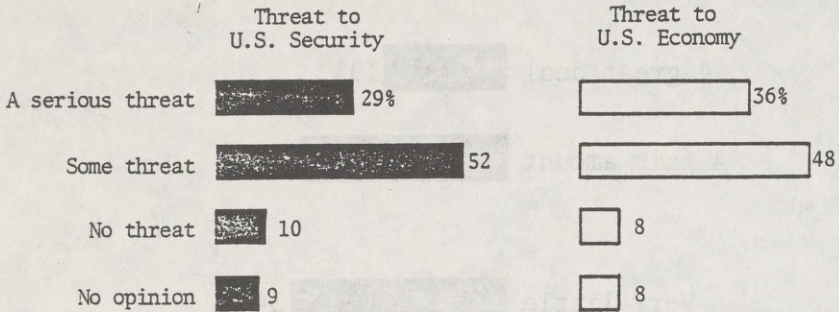
(Total Public: 1,011)



Threat Posed by International Cartels

*"In general, do you think these kinds of cartels pose a serious threat to the security of the United States, pose some threat to U.S. security, or pose no threat?"*

*"In general, do you think these kinds of cartels pose a serious threat to the economy of the United States, pose some threat to U.S. economy, or pose no threat?"*



(Total Public: 1,011)



Support for Stockpiling Important Materials

*"Do you think the United States should maintain stockpiles of important materials whose supply could be cut off or whose price could be increased sharply by international cartels?"*

Yes, should maintain stockpiles [REDACTED] 79%

No, should not [REDACTED] 10

No opinion [REDACTED] 11

(Total Public: 1,011)



Respondents were questioned about the proposed sale of part of two of our national strategic stockpiles -- silver and tin. Prior to the questioning, the following statement was read to each respondent:

*"There has been legislation proposed in Congress in the past few years to permit the sale of some of our strategic stockpiles, such as tin, silver, and industrial diamonds."*



The Sale of Silver from Our Strategic Stockpile

*"Let's consider silver. It is used extensively during wartime in the electrical and electronic industry and in the photography industry. About half of the silver we need is imported, with most imports coming from Peru, Australia, Mexico, and Canada. This strategic stockpile of silver has been markedly reduced since the early 1960's. The proposed legislation provides for selling off 80% of the current strategic stockpile of silver.*

*Those who favor selling the silver say it will be done in such a way as to protect the interests of the United States and that we will still have an adequate supply. Those who oppose the sale say a lack of silver will weaken our national defense and could hurt us in a wartime situation. If the decision were yours, would you favor or oppose the proposed sale of silver from our national strategic stockpile?"*

Favor  19%

Oppose  71

No opinion  10

(Total Public: 1,011)



The Sale of Tin from Our Strategic Stockpile

*"In the case of tin, nearly three-quarters of that which we use must be imported, mainly from Southeast Asia and Bolivia. The remainder of our tin is recycled tin; there is virtually no tin mining in the United States at this time. This strategic stockpile has been reduced since the early 1960's. The proposed legislation provides for selling off 15% of the current stockpile.*

*Those who favor selling tin say it is not needed for national defense, but rather is mostly used for packaging food, and that there are substitutes, such as glass and aluminum. Those who oppose the sale say that, if there were a reduction in our imports of tin, it could seriously affect the food supply, particularly during a military conflict. If the decision were yours, would you favor or oppose the proposed sale of tin from our national strategic stockpile?"*

Favor  25%

Oppose  66

No opinion  9

(Total Public: 1,011)



Commodity Prices:  
Government Influence Vs. the Marketplace

*"Do you believe the federal government should attempt to influence the price of such items as oil, minerals, and metals; or should the price be left to the law of supply and demand in the marketplace?"*

Government should influence prices 35%

Prices left to the marketplace 51

Depends 7

No opinion 7

(Total Public: 1,011)



Senator HART. Our last witness is Mr. William Schneider who represents the Hudson Institute.

### STATEMENT OF WILLIAM SCHNEIDER, HUDSON INSTITUTE

Mr. SCHNEIDER. Thank you very much, Mr. Chairman. It is a privilege to appear before this committee.

I have a brief prepared statement which I will submit for the record and if it would save the committee's time I would be glad to provide a 3 or 4 minute summary.

Senator HART. So ordered.

[The prepared statement follows:]

#### PREPARED STATEMENT OF WILLIAM SCHNEIDER, JR.

Mr. Chairman and distinguished Members of the Committee: It is a privilege to appear before you today to present my views concerning national defense stockpile legislation. I am William Schneider, Jr., an economist and defense analyst. For the past ten years I have specialized in the study of national security policy problems as a professional staff member and consultant to the Hudson Institute (New York) and a U.S. Congress staff member, and have published several professional articles and monographs, as well as a book dealing with the problem of critical materials stockpiles.<sup>1</sup> I would like to address my remarks to four areas I believe to be pertinent to this Committee's consideration of major stockpile legislation before this session of the Congress, S. 2575 and S. 2635.

#### CONGRESSIONAL INTENT

The intent of Congress with respect to existing statutes dealing with commodity stockpiles is clearly expressed in the legislative history of the legislation. Although there were some important pre-World War II statutes, the basic authority for establishing and using the current strategic materials stockpile is the Stockpiling Act of 1946. The legislative intent expressed in the policy statement of that Act was quite explicit; the purpose of the statute was to decrease and prevent a "dangerous and costly dependence" on foreign nations for raw materials in the event of war. The Act states:

That the natural resources of the United States in certain strategic and critical materials being deficient or insufficiently developed to supply the industrial, military, and naval needs of the country for common defense, it is the policy of the Congress and the purpose and intent of this Act to provide for the acquisition and retention of stocks of these materials and to encourage the conservation and development of sources of these materials within the United States, and thereby decrease and prevent wherever possible a dangerous and costly dependence of the United States upon foreign nations of supplies of these materials in times of national emergency.

At the conclusion of these remarks, I have attached an Appendix containing a history of the stockpile objectives for fourteen selected raw materials from November, 1944 to November 1976.\* These commodities were selected because of their relevance to the national defense industrial mobilization base. Although I will only discuss one of the commodities on this list in any detail (silver), it is worth noting that there has been a very high degree of volatility to our stockpile objectives. The changes in stockpile objectives have not emerged as a consequence of drastic changes in U.S. defense objectives, but rather in the basic assumptions supporting the formulation of stockpile objectives.

In 1973, a major policy change was initiated with respect to the formulation of strategic stockpile objectives when several fundamental assumptions were changed upon which the existing stockpile was based. The aggregate effect of the changes in these assumptions was to reduce the stockpile objectives from \$4.8 billion to \$700 million. The most important change was to shift the planning con-

<sup>1</sup> "Food, Foreign Policy, and Raw Materials Cartels," (New York: Crane, Russak, 1976).

\*See "Stockpile objectives for selected minerals over the entire life of the national and Supplemental Strategic Stockpiles," p. 115.



straint for a future military contingency from three years to only one year duration. In effect, the strategic stockpile needed only to be adequate to sustain industrial mobilization requirements to support a conflict lasting one year or less. New assumptions were made concerning raw materials imports, civilian austerity, and substitution of non-critical materials for critical materials during a time of national emergency.

Because of the drastic character of the policy changes proposed in 1973, concern was expressed in the Congress over the congruence of the policy change with Congressional intent expressed in the 1946 Act. Additional criticism was expressed by the General Accounting Office as well.<sup>2</sup>

As a consequence, a new stockpile policy was established in response to Congressional guidance, effective October 1, 1976, and remains in effect today.

#### STRATEGIC VERSUS ECONOMIC STOCKPILING

The turbulence in the international commodity markets in the 1973-1975 time period affected almost every important internationally traded commodity. Agricultural markets were disrupted by large import requirements for the Soviet Union, the Indian subcontinent, and the Sahel due to drought and agricultural mismanagement. Non-fuel raw materials reached extraordinarily high prices due to a simultaneous high level of demand in Europe, North America, and East Asia, while petroleum prices were forced up by a factor of three by the cartel action of the major oil exporting nations. As a consequence of these events, significant interest was focused upon expanding the purposes of the existing strategic stockpile to include circumstances where the adverse effects of economic disruption affecting the supply of raw materials could be mitigated by drawing upon national stocks.<sup>3</sup>

There are important difficulties with a co-mingling of the two concepts if a commodity stockpile is to be retained that is responsive to national security requirements. The fundamental distinction relates to the notion that an economic stockpile must be calibrated in terms of months or years of civilian consumption requirements. Strategic commodities must be calibrated against plausible mobilization requirements.

Civilian consumption requirements are vulnerable to rather high-confidence prediction, because the structure of demand in the civil sector evolves slowly in response to changes in technology, relative prices, and the long-term evolution of consumer preferences.

Mobilization requirements are far more difficult to estimate, and consequently a far larger margin for error must be provided. The demand for raw materials can change very rapidly during a period of mobilization as the rapid pace of war-induced technological change shifts the pattern of commodity demand. Thus, at the outset of World War II, natural rubber was an extremely valuable commodity for a strategic stockpile, while aluminum's value to the war effort was less clearly perceived. Yet, by 1944, aluminum was by far the more critical of the two commodities for sustaining the war effort. Moreover, questions of resource availability which pose no serious problem for the civilian economy when mines can be opened over a period of years, may be crucial for mobilization contingencies.

Nevertheless, the tendency in government policy since 1973 has been to move towards a *de facto* economic stockpile and away from a stockpile policy dominated by the need to meet mobilization requirements. If this trend is not reversed by Legislative or Executive branch action, it is unlikely that stressful mobilization contingencies can be accommodated.

#### MOBILIZATION REQUIREMENTS

The introduction of nuclear weapons and intercontinental delivery systems in the mid-1950s in large numbers contributed to an erosion of the belief that a World War II type of industrial mobilization would be required. As a result,

<sup>2</sup> "Stockpile Objectives of Strategic and Critical Materials Should Be Reconsidered Because of Shortages," March 11, 1975.

<sup>3</sup> The Office of Technology Assessment conducted a major study of economic stockpile objectives in 1976. One pertinent observation made by OTA concerning the future of the stockpile program is, "If present rules remain unchanged, the future stockpile program consists of establishing an orderly disposal program." *An Assessment of Alternative Economic Stockpiling Policies*, U.S. Congress, Office of Technology Assessment, OTA-M-36, August, 1976, p. 239.



the need to retain multi-year levels of strategic materials inventories became questionable to many policy level officials.

This attitude, still very widely held, may not reflect the prospective mobilization requirements to be faced by the United States as a result of the introduction of new forms of military technology. Perhaps the most significant factor compelling a review of U.S. mobilization requirements as they affect strategic commodity stockpiles is the very high lethality of modern non-nuclear weapons and the enormous attrition rates exacted on the modern battlefield.

The outcome of the brief 1973 Arab-Israeli War is instructive in this regard. The widespread use of precision guided munitions ("smart" weapons), massive fires from tube and missile artillery and tactical aircraft resulted in an awesome rate of attrition of combat equipment. As a result, many of the assumptions which were sustained from Korean and Vietnam War experience could no longer be supported. The tanks provided to Israel to replace her battlefield losses amounted to nearly three-years production in the U.S. The mobilization demands on the U.S., not only to support U.S. forces, but to support allied forces as well may be very substantially underestimated by the failure of current procedures to take into account the changes brought about by advanced military technology.

The rapid pace of technological innovation during a military conflict (e.g. World War II) or a period of protracted political-military tension (e.g. the 1950s) makes estimates of mobilization consumption rates very difficult. Technological innovation can substantially alter the demand structure of virtually any commodity, and can do so rapidly under mobilization. While few guidelines can be established with universal application, it is clear that commodities with unique physical properties (e.g. conductivity, radioactivity), long-lead times to initiate production, dependence upon imports, or commodities which require heavy inputs of scarce factor(s) of production (i.e. electrical power) should be serious candidates for a strategic stockpile program. A very large "safety factor" should be applied to those commodities which may be most difficult to acquire over some nominal period such as one year.

The high cost of maintaining a "standby" industrial base to support a mobilization contingency has been a deterrent to supporting one with Federal funds. As a consequence, the industrial base to support a major mobilization for either U.S. forces or in concert with allied forces is very severely depleted. Thus, mobilization requirements should not be "sized" against multiplying existing industrial capacity by say a factor of 2.7 (i.e. going to three-shift production minus an allowance for maintenance), but should reflect an estimate of military requirements for deployed forces. Our experience in World War II, and to a lesser extent in the Korean conflict (where defense expenditures tripled in a single year—fiscal year 1950-51) suggests that capacity is stretched by modification of indirectly related facilities to produce military equipment, e.g. employing railway car manufacturers to produce tanks. Existing capacity is a poor measure of mobilization potential, and to the extent it is used to estimate strategic material stockpile requirements, it will understate those requirements.

A point related to the above concerns the character of consumption patterns for raw materials over the course of a period of industrial mobilization. Early in the period of mobilization, demand patterns reflect an accelerated rate of pre-conflict consumption as currently available technological choices are exploited. Later in the mobilization period, however, demand patterns shift in response to new technological alternatives. This process insures that pre-conflict forecasts will almost certainly be inadequate as predictors of the pattern of raw material demand. Hence, the need for large safety factors in scarce materials must be an important element in the formulation of a new national policy for a strategic raw materials stockpile.

#### AN ILLUSTRATION OF POLICY INADEQUACY: SILVER

Although it is not my intention to review the content of proposed stockpile legislation in detail in this statement, I would like to comment on one component of the Administration's stockpile sale proposal which illustrates a shortcoming of their proposal.

The Administration's bill, S. 2635 seeks legislative approval for the sale of various quantities of eleven commodities from the strategic stockpile including 62.5 million ounces. This sale represents approximately 40 percent of the entire strategic inventory of silver.

As is well known, silver is unique among industrial commodities because of its high conductivity—the highest found in nature. As a consequence, silver is



widely used in the electronics industry where high conductivity is required. Some advanced technology has diminished some applications for silver, but has by no means replaced it.

Moreover, because the finding rate for silver is low, and its extraction as a by-product from other mining operations is expensive, a rapid increase in production may not be a feasible alternative. As a consequence, less satisfactory substitutes may have to be located that would result in performance degradation and increased cost during a period of mobilization. Reasonable mobilization contingencies suggest that the existing stockpile of silver should be doubled rather than halved as proposed in S. 2635

#### CONCLUSION

The mobilization capacity of American industry is perhaps our most important military asset. This asset will be dissipated if adequate supplies of needed raw materials are not available to support the mobilization of American industry during a national emergency. The recent history of strategic stockpile practices suggest that our national mobilization capacity will be gravely compromised unless appropriate remedial steps are taken to reverse the trend.

I urge the Congress to support a strategic stockpile program which will support an industrial mobilization program over a wide range of military contingencies.

Mr. SCHNEIDER. I want to make first three general points about the issue of strategic stockpiles and then make one specific point with relation to one of the pieces of legislation that is before this committee.

First, with respect to congressional intent, when the Congress established the strategic stockpile legislation in the mid forties the purpose was unambiguously in support of mobilization contingencies related to conflict and we have seen a gradual undermining of congressional intent by the force of circumstance; namely, there have been very rapid and difficult to explain changes in inventory objectives in the national stockpile. I have appended a selected list of 14 commodities and shown the acquisition objective histories between 1944 and 1976 and, as you can see from this list, that there is very extensive changes that have taken place in these 14 commodities.

I just selected these commodities because of the fact that they are important in any industrial mobilization that might be required at some future date.

In 1973 important changes were made in the basic assumptions that underlie the formulation of stockpile objectives—most importantly, in the expectation that we should plan on only a 1-year mobilization contingency rather than a 3-year mobilization contingency. As a consequence, the stockpile objectives went down very sharply and this rapid reduction in stockpile objectives was resisted by the Congress and a new formulation was made in 1976 and these are the ones that we are living under now.

The concern in the 1973–75 period about the adequacy of foreign sources of supply that was engendered, of course, by the oil boycott problems and the cartel problems in 1973, the very rapid runup of commodity prices in the 1973–74 time period in general both in non-fuel minerals and agricultural products created a great deal of interest in economic stockpiling as opposed to strategic stockpiling.

I just would like to call attention to this because of the important difference between an economic stockpile and the strategic stockpile for the purposes of the statutes that we now have on the books. The key distinction, I think, that one should draw is that the calibration point for an economic stockpile is really peacetime consumption rates



whereas the calibration for mobilization of the stockpile is really plausible rates of mobilization which is much more difficult to take account of and often are more difficult in execution.

That is, for a mobilization stockpile we have over 90 commodities whereas for an economic stockpile we may choose to have perhaps two dozen. It might be more adequate. I think this is an important distinction that has to be borne in mind when thinking about what kinds of changes we might make in our national stockpile policy as perhaps a sunset of a revision of a national minerals policy.

The third point I would like to make of a general character relates to the formulation of the stockpile objectives. Basically these are supposed to be linked according to statute to mobilization objectives and as we have seen over the past 25 years with the introduction of nuclear weapons and intercontinental delivery systems I believe that industrial mobilization of the kind that we had in World War II and to a lesser extent in Korea was not the kind of thing we have to face in the future.

Therefore, there has really been a decline in at least the policy level in the concern about maintaining a robust stockpile but I would like to point out some, let's say, more recent evidence about why we might want to reconsider our attitudes toward mobilization objectives.

Consider the 1973 Middle East war and some of the attendant military technology that emerged there. General weapons are becoming extremely lethal and when employed in a manner in which best exploits their design we can expect extremely high attrition rates in any future nonnuclear conflict.

So what we may be facing are mobilization requirements that are at least as severe as those we faced in World War II, although the type of industrial mobilization may be dramatically different.

The point I am driving at with respect to mobilization requirements is that too often the mobilization objectives that are being established for stockpile objectives don't reflect the likely contingencies that the country may have to face with respect to mobilization; that is, we may have to factor in greater reliance upon part of our lives and our industrial base. Our industrial base is a major military asset we have and also that we may have to expect much higher rates of battlefield attrition than have previously taken place and consequently may have larger mobilization requirements than we have heretofore expected.

I just would like to call attention to one aspect of the administration's proposed sale that I think illustrates the kind of problem that we are dealing with on the establishment of mobilization objectives.

This concern about the sale of silver—silver, as you know, has unique properties. It is an excellent conductor—in fact, the best conductor in nature of electricity and as a consequence has very wide application. It was mentioned earlier the role of silver in batteries and they certainly are going to be used in the post boost control in the MX and the Trident missile system and may well be used in other areas.

The point is that it is so difficult to estimate what our likely contingencies are going to be that for commodities that have the property that they have, extremely valuable physical properties such as an excellent conductor or have very long leads to leave times to increase



production or we have great import dependence that I think we should revise our stockpile objectives and specifically with regard to silver rather than sell off about 40 percent of the stockpile.

I think that consideration should be given to increasing the stockpile by a factor of 2 because of the fact that over time electronics and surveillance technology that we will be using in our military forces is likely to require more silver rather than less and present programs will probably not permit us to rapidly augment the silver stockpile if we need it.

That concludes my informal statement, Mr. Chairman.

Senator HART. Thank you, Dr. Schneider.

I am fascinated by your conclusions relating to the 1973 Middle East war. Primarily there are at least two other conclusions to be reached by that. You are either consciously or unconsciously rejected. Having to do, say, with the survivability of the tank in modern ground combat, one conclusion might be we are building the wrong kinds of tanks. The other might be that the tank is an outmoded weapon at least in that scenario. If you can destroy that many tanks in that period of time, what is going to happen in the modern battlefield in a prolonged—let's hypothesize it—for a long war while we are gearing up production to replace those tanks?

Mr. SCHNEIDER. Well, in the Middle East war 85 percent of the tank kills were made by other tanks so the introduction of modern technology still makes the tank the focal point of the offensive warfare and it seems to me unlikely that the tank is likely to be replaced by any other vehicle because of the prospect for the introduction of advanced technology and other elements.

Combined artillery where you are seeing the introduction of cannon launch guided projectiles that will have the property of having counter battery fire.

I think we are now in the offense/defense race with regard to these things and I think it is premature to pronounce the death of the tank. I think over time surely the next generation tank will be much lighter and be capable of a much higher sustained rate of fire than the tank we are likely to deploy for the next 20 years but I think there is no real alternative to the tank at this point.

In terms of production of tanks, one of the things that I think the Congress is likely to have to face is the problem of very high attrition rates and consequently making higher initial buys other than we would have done otherwise in anticipation of the longer period of mobilization, but in order to sustain high rates of procurement we are probably going to need better strategic stockpiles.

Senator HART. Yes; my point here is the obvious one that the stockpile does not seem to me is going to do you much good unless you hypothesize a kind of World War II scenario again because of the length of time to convert that raw material into a battlefield weapon. You are going to have to use the commodities, the materials and go ahead and build the tanks. I don't see that having a bunch of raw materials sitting around on the ground is going to do us much good in the next year.

Mr. SCHNEIDER. Just to comment briefly, I think the most likely contingency, and I don't think it is very likely to get in another war but it would involve a protracted period of political tension where



we would be forced into, say, a quasi-general mobilization; that is, certain parts of our industrial base would have to have unaccustomed high rates of production in tactical aircraft and combat vehicles for the Army and under these circumstances I think that we probably would need to call on our strategic stockpile simply because these would be rates that are far in excess of what would be produced under peacetime conditions and this would be a necessary part of the political dialog that would take place prior to an actual conflict.

Senator HART. I agree with you that I don't think that is the time or place to debate future weaponry of the battlefield but there the tanks are around. Once the horse became vulnerable the response was, oh, heavy armor made it even more vulnerable by slowing it down and all the antihorse people had to do was come up with a more piercing ax. A slow horse plodding around with all the armor got hacked up any way. We will take that up later.

I take it it is safe to characterize this as a study.

Mr. SCHNEIDER. Yes; this is drawn from a book I am working on, on the general problem of commodity stockpiles in trying to arrive at a more general theory of what level of commodity stockpiles one arrives at.

Senator HART. I see. What progress are you making?

Mr. SCHNEIDER. Well, I am mainly now trying to identify circumstances where mobilization would stress existing stockpile objectives to see to what extent existing stockpile objectives would be inadequate to support the mobilization that I think might be appropriate over the next two or three decades and silver is one case that I have looked at where the plausible demands on the silver inventory are likely to be considerably larger than the stockpile objectives under stressful mobilization contingencies and so I was grateful for an opportunity to present at least my preliminary views on the subject before the subcommittee.

Senator HART. It is helpful for us but my more specific point is that you have a small but eager audience here in this committee which may or may not justify the printing of the book. [Laughter.]

The question is when is it going to be available?

Mr. SCHNEIDER. Well, it is one of those things that it should have been available about a month ago and it is still not finished.

Senator HART. Just so we understand, as they say, where you are coming from, is that sponsored by anyone?

Mr. SCHNEIDER. No; this has been an interest of mine since I was a graduate student. This is something I am doing on my own.

Senator HART. This is not at the request of anyone?

Mr. SCHNEIDER. No; it is not sponsored by anyone.

Senator HART. We want to thank you for coming. If you want to supplement your remarks or add any information, you are certainly welcome to for the record.

Mr. SCHNEIDER. Thank you very much.

Senator HART. Thank you for taking the trouble. We may want to talk to you in the future.

Mr. SCHNEIDER. Glad to.

Senator HART. I want to remind everyone that we have attempted to accommodate all those who have indicated an interest in appearing



and testifying. We will, as I have indicated, keep the record open until March 15 for submission of additional information and it will be included in the published record.

At this point I would like to recall Mr. Ronald Royal who is Assistant Director for Civil Crisis Preparedness of the Federal Preparedness Agency for comments I think he wishes to make with regard to legislation proposed by Senator DeConcini.

Welcome, again, Mr. Royal, and your colleagues.

Could you give us a summary of the DeConcini bill that we heard about earlier and your comments or your thoughts on that, the administration's position and reasons for those.

#### **STATEMENT OF RONALD ROYAL, ASSISTANT DIRECTOR FOR CIVIL CRISIS PREPAREDNESS, FEDERAL PREPAREDNESS AGENCY**

Mr. ROYAL. Yes, sir, Mr. Chairman. I would be glad to do that.

May I first mention that Mr. Mitchell regrets that he is not here this morning but he has a speaking engagement in Wisconsin, I believe, and he left late yesterday afternoon.

As you may remember, on my left is Mr. Zabrowski, the Chief of our Stockpile Policy and Objectives Division; Mr. Gionfriddo, who is an international economist; and Mr. Marilley, who is Assistant General Counsel of the General Services Administration.

Yesterday we testified on a number of bills concerning overall stockpiling matters. Today I would like to mention several other specific bills which have to do with specific acquisitions and disposals. First of all, very briefly let me touch on S. 2181. The administration supports that bill. Yesterday you had detailed testimony from the State Department as to the reason why the administration supports that bill and unless you prefer otherwise, I would assume that that would be sufficient at this time. Also yesterday we did testify that we continued to oppose S. 2167 often known as the Domenici bill in its present form and the reasons. I think I summarized it in one sentence yesterday. I might go a bit further into that this morning.

There are higher priorities for stockpile purchases which that bill did not include and, secondly, that bill relies exclusively on tin disposals to support the copper purchases which it proposes.

The legislation which Mr. Udall and Senator DeConcini mentioned earlier this morning has significant modifications to S. 2167. First of all, it reduces the size of the copper purchase to up to 225,000 tons so there is a decrease in the amount of copper to be purchased. In addition, it does not direct the administration to purchase that exact amount of tonnage; it authorizes the administration to purchase up to that amount of tonnage. We think that is a significant difference.

It also provides for flexibility in the timing of disposals in order to gain the receipts which would be used toward the purchase of that copper and flexibility in the purchasing of the copper itself. In addition to that it also allows receipts from another metal—namely tungsten—to be used toward the copper purchases.

Those are the three major provisions, and if I may refer to it as the DeConcini-Udall legislation for the sake of simplicity, and S. 2167. Now if you would like, I would be glad to look at the DeConcini-Udall bill paragraph by paragraph.



Senator HART. No; I don't think that is necessary. I think you have covered the principal points here.

I take it it is your position, then, on behalf of the administration that you are in support of this measure.

Mr. ROYAL. Yes, sir. The administration does support the proposed legislation that Senator DeConcini and Representative Udall mentioned this morning to you.

Senator HART. Have you had any additional thoughts about S. 2575 particularly in light of this proposal and whether those two would mesh, S. 2575 being the comprehensive?

Mr. ROYAL. Yes. S. 2575, of course, addresses itself to entire revision of the Stockpiling Act of 1946, whereas this bill addresses itself to a particular acquisition and two disposals. In essence the Congress in this case is legislating a specific action which may or may not normally take place under S. 2575 and to that extent there is a difference.

You might say that the DeConcini-Udall bill directs a specific action which may or may not take place under S. 2575.

I am sorry but I did forget to point out one other very important difference in the proposed new legislation to be introduced and S. 2167. This is perhaps one of the most important points from the standpoint of the Federal Preparedness Agency and I apologize for overlooking it earlier.

The proposed legislation sets aside receipts from the sales of tin to be used for higher priority strategic and critical material purchases in addition to the copper purchase and in fact perhaps that is the major turning point as far as the administration is concerned. This provision preserves the President's priorities in regard to what he has directed us to purchase immediately. Under the proposed legislation, we will be able to continue with the purchase within market constraints of the highest priority materials as well as proceed with the type of purchase which is in jeopardy in the stockpile and does have a priority. There are others that have a higher priority but the proposed legislation takes that into account and accommodates that fact.

Senator HART. In other words, it is your view that this proposal we have heard about today offers more flexibility than S. 2167?

Mr. ROYAL. Yes, absolutely, because S. 2167 concerns itself with two metals and one to be sold and one to be bought. The proposed legislation concerns itself with the two metals to be sold and a number of metals to be purchased, not just one but a number of metals.

If I may also go back one further step, the proposed legislation excludes the receipts from an initial amount of tin toward the copper purchase. Those are the receipts that we had previously programed and hopefully will have if the appropriate House committee authorizes the disposal. Those are the receipts that we had previously programed toward the 1978-79 acquisition as they presently appear in the President's budget. That amounts to an exclusion of 5,000 tons of tin in fiscal 1978 and 10,000 tons of tin in fiscal 1979.

Senator HART. In your judgment would this legislation require additional appropriation requests and, if so, would you intend to make those?



Mr. ROYAL. The legislation, as I recall the proposed legislation, would read that the General Services Administration is authorized to dispose of up to this amount and to purchase up to this amount.

I think that I would like to ask Mr. Marilley, our legal counsel, to address himself to that question.

Mr. MARILLEY. It is not anticipated as the bill is written because the bill covers the possibility of barter. In other words, the language of the legislation says that tungsten may be disposed of or the proceeds of such sale.

Senator HART. I think you better take a careful look at that because I am not sure that is what this bill says.

Mr. MARILLEY. The bartering aspects?

Senator HART. Yes, the DeConcini bill.

Mr. MARILLEY. Normally, Senator, the term "disposal" as used in the bill, includes barter.

Senator HART. Look it over and give us your judgment for the record, if you would.

Mr. MARILLEY. Yes.

Mr. ROYAL. We will certainly do that, Mr. Chairman.

[The information follows:]

Senator Hart asked if the proposed legislation required additional appropriation requests. The answer is no. However, as to whether the proposed legislation should be approved by the Committee on Appropriations under the Congressional Budget Act of 1974, is a question more appropriate for the Congressional Budget Office to answer.

Mr. ROYAL. The language, as I understand it, I don't have the final copy, I believe reads that the Administrator of General Services is hereby authorized to dispose of, by negotiation or otherwise, up to 45,000 long tons of tin.

Senator HART. The question has to do with the acquisition of copper, whether that will require appropriation—not the sale of tin, not the disposal of tin. Look it over and give us your judgment, if you will.

Mr. ROYAL. Yes.

Senator HART. We have one of the latest draft of that bill and we will insert it in the record at this point so we have a frame of reference.

[The information follows:]

[S. 2702, 95th Cong. 2d sess.]

A BILL To authorize the disposal of up to forty-five thousand long tons of tin from the national stockpile and the supplemental stockpile and to utilize a portion of such tin, or the proceeds from the sale thereof, to obtain up to two hundred and twenty-five thousand short tons of copper for the national stockpile, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.* That, notwithstanding any other provision of law, the Administrator of General Services is hereby authorized to dispose of, by negotiation or otherwise, up to forty-five thousand long tons of tin now held in the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98-98h) and the supplemental stockpile established pursuant to section 104(b) of the Agricultural Trade Development and Assistance Act of 1954 (68 Stat. 456, as amended by 73 Stat. 607).

SEC. 2. (a) Subject to the provisions of subsection (b), up to twenty-six thousand long tons of the tin authorized to be disposed of under this Act, or the proceeds from the sale thereof, shall be used to obtain a quantity of copper up to two hundred and twenty-five thousand short tons.

(b) (1) The proceeds from the sale of the first five thousand long tons of tin sold under authority of this Act in fiscal year 1978 and the proceeds from the



sale of the first ten thousand long tons of such tin sold in fiscal year 1979 shall be covered into the Treasury as miscellaneous receipts.

(2) Four thousand long tons of tin authorized to be disposed of under authority of this Act, or the proceeds from the sale thereof, shall be used to purchase strategic and critical materials which are needed on a priority basis to meet stockpile goals established under section 2 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98a).

(c) The Administrator of General Services is authorized to use any quantity of tungsten, or the proceeds from the sale thereof, which is available for disposal under the provisions of Public Law 91-325 or the Defense Production Act of 1950, as amended, to aid in the acquisition of the quantity of copper referred to in subsection (a) of this section, except that (1) proceeds from the sale of the first three million pounds of such tungsten disposed of in fiscal year 1978, and (2) proceeds from the sale of the first three million pounds of such tungsten disposed of in fiscal year 1979 may not be used for such purpose.

(d) Copper obtained under authority of this Act shall be added to and made a part of the national stockpile referred to in the first section of this Act.

SEC. 3. The time and method of tin disposals made under authority of this Act shall be fixed with due regard to the protection of the United States against avoidable loss and the protection of producers, processors, and consumers against avoidable disruption of their usual markets.

Senator HART. Do you have anything else to say?

Mr. ROYAL. The comment that Mr. Zabrowski would like for me to make, Senator, has to do with S. 2575. I believe it is reflected in the proposed revisions that we gave to you yesterday and that is that we need to have access to all markets and not exclude foreign markets.

Senator HART. Fine. Thank you very much.

I want to thank all of our witnesses for their patience and their contribution. We have made an excellent record here.

With that we will conclude the hearing.

[Whereupon, at 11:55 a.m., the subcommittee adjourned.]

(Subsequent to the hearings, statements were submitted for the record from the Industrial Diamond Association, the Malaysian Tin Bureau, Gulf Chemical and Metallurgical Division of Associated Metals and Minerals Corp., and the American Copper Council.)

[The statements follow:]

PREPARED STATEMENT OF JAMES E. ANDERSON, WASHINGTON REPRESENTATIVE  
FOR THE INDUSTRIAL DIAMOND ASSOCIATION

Senator Gary Hart, chairman of the Senate Subcommittee on Armed Services and members of the subcommittee: The Industrial Diamond Association of America (IDA), a trade association of importers-dealers, tool makers, wheel makers, and distributors, wish to thank the Chairman and members of the Subcommittee for giving it the opportunity to present its comments for the record concerning the disposal legislation now being considered by the Subcommittee.

Members of the IDA deal in unset industrial diamond stones, crushing bort, and diamond dies and in many cases manufacture products containing industrial diamond materials. These products are used by industry to grind, drill, cut, and bore the hardest of materials. Industrial diamonds are essential in machining the high-grade metals necessary for high technology, aerospace, and other industrial applications. Their use is essential in drilling mechanisms used by the petrochemical industry and they are needed for purposes of polishing in almost every aspect of the industrial spectrum. Members of the IDA have appeared and testified before this Subcommittee in prior years with reference to disposal legislation dealing with industrial diamond materials and have always been interested in disposal legislation as it has a great effect on their industry.

IDA wishes to make it clear to the Chairman and members of this Subcommittee that it is in favor of legislation giving the government authority to dispose of industrial diamond stones, diamond dies, and other industrial diamond materials from the stockpile provided that such disposal does not unduly disrupt the commercial markets for such materials. IDA also supports legislation con-



taining provisions limiting sales of these commodities to established American business interests and prohibiting sales to foreign business interests and foreign governments and in this regard endorses § 7(c) (3) of S-2575 which provides that: "No disposal may be made from the National Defense Stockpile to any foreign interests".

We have argued in the past that the specific intent of the proposed legislation should be that the time and method of disposal should be fixed with regard to the protection of the United States against avoidable loss and the protection of producers, processors, and consumers against avoidable disruption of their usual markets. We have always been concerned with a bill containing broad language with no specifics concerning the method of disposal. In the past members of IDA have maintained contact with the Federal Preparedness Agency concerning the method of disposal and these dealings have been less than satisfactory. In order to insure that government disposal policies do not unduly disrupt the market, we urge this Subcommittee either to adopt language in the bill or construct legislative history which contains provisions describing disposal procedures to be utilized by the National Defense Stockpile Administrator or any other government agency charged with the responsibility of disposing of diamond materials from the stockpile.

Members of the IDA met recently at their Annual Meeting and carefully considered S-2575 and the government's request for authorization to dispose of 4.5 million carats of industrial diamond stones and 10,000 pieces of diamond dies and adopted the following policy concerning the disposal of industrial diamond materials from the stockpile. We urge this Subcommittee to adopt this position in order to prevent undue disruption of the commercial market for these diamond materials.

A. Industrial diamond stones sales from the stockpile should be limited to approximately 15 percent of the free world consumption annually. Under present estimates this equals approximately 900,000 carats per year.

B. Industrial diamond dies, .0008 inches and smaller, should be limited to 15 percent of U.S. consumption annually. Under present conditions this equals approximately 900 pieces per year.

The government has not requested authorization for authority to dispose of additional quantities of crushing bort from the stockpile. GSA currently is in the process of selling crushing bort according to previous authorization. IDA would like to emphasize to this Subcommittee that if sales continue at the present rate, authorization for bort disposal will expire in approximately June of 1980. The IDA supports and recommends legislation authorizing further disposal of bort from the stockpile and emphasizes that in order to avoid undue disruption of the commercial market, bort sales should be limited to approximately 15 percent of the free world consumption annually, which under present conditions is approximately 3 million carats per year.

As mentioned above, IDA strongly supports § 7(c) (3) of S-2575 and opposes any sales from the stockpile that are made to foreign business interests or foreign governments. In recent months, the demand for industrial diamond materials has increased world wide. The devaluation of the dollar has weakened the competitive position of American importers-dealers and users of industrial diamond materials and in recent months sales of crushing bort from the stockpile have attracted several foreign interests who have submitted bids and successfully purchased bort from the stockpile.

The U.S. has no natural sources of natural industrial diamond materials and the only significant free world source of industrial diamonds, diamond dies, and bort is the continent of Africa. If the value of the dollar continues to decline, American business interests will find it increasingly difficult to purchase industrial diamond materials both abroad and from the stockpile.

Another reason why foreign business interests are attracted to sales of industrial diamond materials is that the materials are sold in large lots. This practice makes it financially impossible for small American business interests to submit bids for these materials. IDA has taken the position that all sales of diamond materials from the stockpile should be made in lots sufficiently small in size to afford all American business interests the ability to bid and purchase goods from the stockpile.

We thank the Subcommittee very much for the opportunity to comment on the record and hope that our views will be considered in finalizing the legislation.



## STATEMENT OF R. D. COURSEN, DIRECTOR OF THE MALAYSIAN TIN BUREAU

Thank you, Mr. Chairman, for your invitation to present testimony as a witness on the subject of tin on H.R. 9486.

My name is R. D. Coursen. I am Director of the Malaysian Tin Bureau, which since 1952 has represented in the United States the interests of the the individually owned tin mining companies of Malaysia. They totally support our Bureau; it has no other financial resources. The Bureau has registered with the U.S. Department of Justice under the Foreign Agents Registration Act as an agent of the Tin Industry (Research and Development) Board of Malaysia.

Initially, may we establish certain fundamentals about the tin situation. The mining industry of Malaysia has noted that the Bureau does exist as probably the only lightning rod for the producers in the United States and that its Director is fully and freely available to you. In 1976 this industry in Malaysia produced, according to international statistics, 63,401 metric tons of tin-in-concentrates of the free world total of 178,300 metric tons. (The figures for 1977 are not yet complete but the total remains about the same.) Looked at from the consumer side, you will find that in that same year, Malaysia accounted for 60 percent of the total U.S. imports of primary tin, according to the United States Bureau of Mines. Next, you will remember that there are no commercially viable deposits of primary tin in the U.S. and American consumers' primary tin needs are met entirely by imports. We are confident that prior testimony before our Committee has disclosed the fact that the International Tin Council consists of 7 producer government members and 22 consumer government members, of which the United States is one.

Having established these fundamental facts, Mr. Chairman, we would like to go to our initial point. Since 1962, when the first disposals of tin from the strategic stockpile were made commercially in the United States, we have felt that the General Services Administration, acting on behalf of the U.S. Government had the responsibility of disposing of tin. It is true that from time to time there have been instances in which the GSA sales policy was conducted in such a way as to be inimical to the interests of producers. Such an event, for example, took place in the fall of 1966 and the result was a joint communique from the United States Government and the International Tin Council, indicating in effect that sales of the tin from the stockpile by the GSA would not be made at such times and in such tonnages as to seriously damage the welfare of the free world producers, almost all of them were then characterized as "developing nations." At that time, it was also stated that the U.S. Government would attempt to avoid disposing of stockpile tin in such a manner as to interfere unduly, not only with world markets, but with the production and employment in the tin mining industry.

Following up on that point, Mr. Chairman, may I turn your attention to Article 43 of the Fifth International Tin Agreement, dealing with disposal of tin from non-commercial stockpiles. With your permission, I would like to supply for the record the full text of that Article, since it deals directly with the subject of concern to you today. (Attached as Appendix A.)

In addition, we would also like to draw your attention to Executive Report No. 94-37 of the United States Senate, 94th Congress, Second Session. This dealt with the actions of the Committee on Foreign Relations of the Senate when it considered the joining of the Fifth International Tin Agreement by the United States. On page 3 thereof appears the statement:

"The United States assumes two obligations in participating in the Fifth ITA. The first obligation is its \$115,000 annual contribution to the administrative cost of the Tin Council. The Second obligation is to consult with the Tin Council on the disposition of U.S. strategic stockpiles of tin. The U.S. commits itself not to dispose of stockpiles in such a manner as to interfere unduly with production in the tin industry."

However, because we are one of the few, if not the only spokesman for producers available here, we accept with pleasure the invitation to express certain opinions as to why we believe it is a good idea for consumer government members of the International Tin Council to make voluntary contributions/loans to its buffer stock. By implication, those reasons would benefit the United States as much as would be true of other consumer members of the Agreement.

Having laid this groundwork, and counting on your acceptance thereof, we believe you will be interested in five reasons why contributions from consuming members of the International Tin Council are worthwhile.



The first has to do with the size of the buffer stock. During the life of the first three agreements, the buffer stock consisted of mandatory contributions from the producer members of the Agreement in the amount of 20,000 tons. No contributions were called for from the consumer members either on a voluntary or a mandatory basis. During the first three agreements from 1956 to 1970, there were several instances in which either the floor price of the Agreement or its ceiling were pierced. Remembering that in the first three agreements it was the function of the buffer stock to prevent excessive fluctuations in the short-term and that export controls were the designated device for containing them in the long-term, we can see that 20,000 tons was insufficient. The floor was pierced in 1958. The ceiling was pierced in 1956, 1961, 1962, 1963, 1964, 1965, 1966, 1969, 1970, 1973 1974, 1975, 1976 and since January, 1977.

Concerning consumer contributions, history shows that in the life of the Fourth Agreement, which extended from July 1, 1971 to June 30, 1976, certain consumer member governments did, in fact, contribute or make loans of cash to the buffer stock and they included France and The Netherlands. During negotiations under the auspices of the United Nations Commission on Trade and Development, the Fifth Agreement was considered in Geneva in 1976. Some consumer members became convinced that the size of the buffer stock was insufficient, especially to contain prices on the high or ceiling level. The producers on their side felt that an international commodity agreement to be viable and useful to both sides should involve as much of a contribution from the consumers as from themselves. In a series of meetings, it was decided that a buffer stock of 40,000 tons would be sufficient to contain these swings not only for its near-term function of keeping prices in a band, but could be considered as a mid-term mechanism as well. The idea, of course, was to get away from export controls. Experience of the first four agreements indicated that the imposition of such controls on the seven producer member nations were such that, when lifted, production did not immediately start back up again. For some countries, it was not only an arduous process to regain production after the relaxation of exports but to even approximate prior performance. As a result, the Fifth Agreement called for what were described as voluntary contributions from all consumers in the amount of 20,000 and it was further stated that after two and one half years of the life of the Fifth Agreement, its future should be reevaluated on the basis of the consumers' evidence of contributions.

Even before Secretary of State Vance's statement in Paris on May 30, 1976, several consumer member governments had evidenced acceptance of this theory of a voluntary contribution/loan, but there are other consumer nations which did not share that same point of view. That is why Secretary Vance's statement was considered to be so significant in the tin world.

It may be no accident that as a result thereof more and more of the consumer members have indicated that they have made or will make contributions to the buffer stock. The list includes: Belgium/Luxembourg, Denmark, France, Canada, Japan, the Netherlands, as well as a second tranche of contribution from the United Kingdom.

There is no secret in the fact that the forthright position of the United States, as announced in Paris in 1976, had a very material and real effect on these contributions. The tin mining companies of Malaysia, which I represent, were enthusiastic indeed. They believe that 40,000 tons is a sufficient figure for a buffer stock to contain price fluctuations within a band of prices that will be fair to both producers and consumers.

Turning our attention to the economic aspects of a possible contribution of the United States to the buffer stock, it is proper to say that it may be a very good financial investment even if it had no other meritorious aspect. This is so because published figures of the International Tin Council itself have indicated that at the end of the life of each agreement of five years, the profit or loss has been totaled up and in every instance there has been a profit. The average for the first four agreements shows that contributions which were really loans had returned an investment to the contributors of 8 percent, and this is not a bad figure, indeed, considering the price gyrations of this Cinderella metal known as tin. Thus, it can be seen that whether it is tin metal or money that is contributed, there is a real and profitable investment potential for the United States Government and, in fact, for all other consumer contributor/loaners to the buffer stock of the Council.

Next, Mr. Chairman, we would like to emphasize the dependence of the producer members of the Council on the revenue they derive from tin as part of their



Gross National Product. It is true that in Malaysia tin built the roads, supported the hospitals and provided the biggest slice of cash in the revenue of the Government for many years. Today, however, Malaysia, which is by U.S. standards geographically a small country, is not only the world's largest producer of tin but holds a comparable position in regard to rubber and palm oil and is an important supplier of the U.S. of timber and copra products.

Nevertheless, tin is still crucial. In 1974, 18 percent of the volume and value of all exports of Malaysia were in the form of tin and tin ore and were in the amount of 84,361 tons, valued at \$640.8 million; this contrasts with the total value of exports of \$3,569.3 million. At that time tin was number two. In 1975 the comparable figures were 76,610 tons, valued at \$501.1 million, out of the total value of exports of \$3,255.4 million. By 1976 (the last year for which full figures are available), the comparable figures had become 80,240 tons, valued at \$644.7 million, out of a total value of exports of \$4,248.8 million. There are other countries that produce tin where the figure proportionately is even higher. The point, Mr. Chairman, is that Malaysia depends very heavily on revenues derived from its tin mining. Conversely, United States industry, which in 1977, according to the Bureau of Mines' preliminary study, consumed 56,000 tons of primary tin, is also dependent on the Malaysian mining industry. According to the Bureau of Mines, Malaysia accounted for 60 percent of total U.S. imports of tin in 1976 and an estimated 56 percent in 1977.

You have asked us to evaluate the effect of the impact of H.R. 9486 on both United States economic interests as a consumer and on the International Tin Council's ability to insure adequate long-term supplies of tin. You have also suggested we should focus on the possibility of stabilizing prices for the benefit of both producers and consumers. We hope that our foregoing testimony helps answer these points.

Thus, the larger the size of the buffer stock, the better chance there is for stabilization of prices and the less chance there is for the piercing of either the floor or the ceiling as established in joint meetings of the producer and consumer member governments of the Council.

Secondly, production stability will be considerably aided by a doubled buffer stock. This is so because it puts greater stress on the buffer stock and less stress on the export controls imposed on producers at times of low prices.

Thirdly, events of the last 2 years have proven, without a shadow of a doubt, that exploded prices in themselves do not necessarily promote increased production. Even at the high prices for tin that existed in 1977, the Malaysian industry was not able to react in such a way as to increase productivity. This is a very important point when you remember that Malaysia is the world's largest producer. It is generally felt by mining experts throughout the world, and certainly by the Malaysian Government and the Malaysian mining companies, that export controls, which were in effect until June 30, 1976, were inhibiting and there has not been a rebounding or upward growth in the production pattern.

Fourthly, our mining industry shares with American consumer of tin, particularly the steel industry (which has a marked preference for tin from Malaysia) the belief that stable prices are desirable prices. Neither they, as consumers, nor we, as producers, benefit from the machinations of speculators whose interest is in price movement—either up or down. We need to know what our market is going to be tomorrow in order to plan our production today. Conversely, the steel industry wants to know what prices are likely to be so that it can plan its own production of tin mill products. A stronger buffer stock will make a stronger Tin Agreement, and a commitment by consumer members of the Agreement to a contribution/loan to the buffer stock will help make it stronger.

As members of your Committee and your staff have involved themselves in tin, you have undoubtedly found it to be complex. For that reason, we have limited our prepared testimony to the points on which you have focused. We are, however, prepared to answer your questions and would welcome them. We thank you for your courtesy.

#### APPENDIX A

[The Fifth International Tin Agreement, as adopted June 21, 1975]

#### ARTICLE 43

##### DISPOSAL OF TIN FROM NON-COMMERCIAL STOCKPILES

(a) A participating country desiring to dispose of tin from non-commercial stockpiles shall, at adequate notice, consult with the Council concerning its disposal plans.



(b) At the time when a participating country gives notice of a plan to dispose of tin from non-commercial stockpiles, the Council shall promptly enter into official consultations on the plan with that country for the purpose of assuring adequate fulfillment of the provisions of paragraph (d) of this article.

(c) The Council shall from time to time review the progress of such disposals and may make recommendations to the disposing participating country. Any participating country so concerned shall give due consideration to the recommendations of the Council.

(d) Disposals from non-commercial stockpiles shall be made with due regard to the protection of tin producers, processors and consumers against avoidable disruption of their usual markets and against adverse consequences of such disposals on the investment of capital in exploration and development of new supplies and the health and growth of tin mining in the producing countries. The disposals shall be in such amounts and over such periods of time as will not interfere unduly with production and employment in the tin industry in the producing countries and as will avoid creating hardships to the economies of the participating producing countries.

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STATEMENT OF GULF CHEMICAL & METALLURGICAL DIVISION OF  
ASSOCIATED METALS & MINERALS CORP.

Mr. Chairman and members of the subcommittee, Gulf Chemical and Metallurgical Division of Associated Metals and Minerals Corporation is the owner-operator of the only tin smelter in the United States—the Texas City Smelter. We at Gulf Chemical believe it critical for this Subcommittee, in its review of stockpile disposal policies, to be informed of the existence, operations and role of the domestic production of primary tin.

We mention the "existence" of domestic tin production because, all too often, the tin industry is thought of as U.S. consumers and foreign producers only. It is the interests of these highly visible and vocal components of the industry which are discussed in the trade media and popular press—and in statement after statement presented to Congressional committees. Little, if any, recognition is given to the domestic production facet of the tin industry. It is this concern—that the strategic and economic importance of the sole U.S. producer of primary tin may be overlooked—which brings us to this Subcommittee.

Currently, Texas City Smelter is producing more than 6,000 tons of tin per year. This production is on the order of 15 to 20 percent of present United States consumption. Tin concentrates, predominantly from Bolivia, form the base load of Texas City Smelter's production, with recycled residues completing the feed. To reduce this dependence on imported concentrates, and to increase productive capacity, Gulf has embarked on a major capital expansion program. A new \$7 million facility which will permit the use of any tin-bearing material is nearing completion. Our expectation is to decrease reliance on Bolivian concentrates from the current 80 percent of the feed to 20-30 percent. This change in the use of raw materials obviously strengthens the independence of U.S. production, as well as its quantitative capacity.

We at Gulf Chemical strongly urge this Subcommittee to focus on the strategic and economic importance to the United States of the domestic production of tin. The role of Texas City Smelter as an essential component of the tin industry in the United States cannot be overlooked. Nor must its effectiveness as a bulwark against total dependence on foreign-produced tin be diminished by unthinking disposal of stockpiled tin on the domestic market.

Gulf's only realistic market for its smelted tin is domestic, as the transportation costs normally impede Gulf's competing in world markets. Tin released from the Strategic and Critical Materials Stockpile is sold in the domestic market and therefore poses a direct threat to displace Gulf sales.

The traditional protection against such displacement is the requirement of the Strategic and Critical Materials Stock Piling Act, 50 U.S.C. §§ 98-98h, that "the plan and date of disposition shall be fixed with due regard to . . . the protection of producers, processors, and consumers against avoidable disruption of their usual markets . . . 50 U.S.C. § 98b(e). Absent such protection, Gulf's very existence as the sole U.S. producer of primary tin metal could be threatened because of the volume of stockpiled tin available for disposal at any given time. The United States would then find itself totally dependent on foreign sources



for smelted tin, notably Thailand, Indonesia, Malaysia, and the Peoples Republic of China. To insure that the long-range defense and industrial needs of the United States not be left to the vagaries of Southeast Asian political and economic policies, any disposal of stockpiled tin must be geared to the continued ability of the domestic smelting industry to sell its product on a current basis.

The tin disposal bills under consideration by this Subcommittee do reiterate the traditional legislative language mentioned above. But we feel that the unique and often overlooked position of the domestic tin smelting industry requires a more explicit call for protection. We thus respectfully request that this Subcommittee's report specifically point out the necessity for an orderly tin disposal plan which will protect adequately the marketing of domestically-smelted tin.

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AMERICAN COPPER COUNCIL POSITION PAPER, COMMITTEE TO IMPROVE THE  
HEALTH OF THE AMERICAN COPPER PRODUCERS

AN INDUSTRY IN TROUBLE

Surging imports and the depressed picture of world copper values have placed the U.S. "copper" producer in a most vulnerable position. For the past two years in the U.S. imports of refined copper accounted for approximately 20 percent of consumption, which is almost double the historic average. Faced with lower concentrations of copper in domestic ores and rapidly increasing production and environmental costs, the copper mining, smelting, and refining industry is being forced to meet competition at price levels considerably below their average cost of production. But compete they must if we are to maintain a competitive balance for U.S. copper based products. However, by being responsive to world economic conditions, the viability of much of our domestic mining industry becomes questionable, and diminishing our historic self-sufficiency lessens military preparedness. This coupled with the threat of falling prey to foreign cartels leads us to the position that the U.S. does need a strong domestic copper industry.

For the U.S. mining industry to remain viable, immediate action is required. The Federal government is at least partially responsible for the industry's current economic dilemma; and therefore, it should be willing to help in achieving a solution. Government support in developing copper industries for evolving nations contributes to the over supply situation and encourages production where even breakeven operations are considered acceptable. We therefore recommend:

"In order to encourage the lesser developed copper rich nations from surplus copper production, which is depressing copper prices below most costs of production, a study be initiated of American financing both by the Import-Export Bank and private loans by various major United States banks to these developing nations. Favorable financing packages should not allow lesser developed countries to achieve unfair advantages over our producing industries, nor should it mandate output to repay loans at levels which produce world surplus."

In the United States non-productive outlays for pollution control have also placed our domestic producers in an uncompetitive position. Lesser developed copper producing nations have virtually no anti-pollution requirements. Not only does this give an unfair economic advantage, but when pollutants enter the atmosphere they do not respect national boundaries and constitute a global environmental problem. Ecological costs, estimated to be as high as \$.15 a pound in the U.S. are borne disproportionately among U.S. producers. Because of evolving inequities, we would propose the following:

"The General Services Administration has emphasized the strategic necessity for copper in the strategic stockpile. We urge Congress to authorize the purchase of domestically produced copper for this purpose. We further support using revenue generated by the sale of surplus materials to fund as much of any newly authorized purchase as is deemed feasible. This balancing of stockpile materials should not only meet strategic goals, but also help to alleviate unemployment in domestic copper producing regions."

Although advantageous in the short term, stockpiles alone cannot save this industry and produce the necessary resources to maintain political and economic security. The copper industry needs incentives to modernize and to become more efficient, if it is to compete in the long run. Therefore, technological improve-



ments made through capital investment provide the real solution. In recent years much of the capital available to industry has gone into pollution control equipment. These nonproductive expenditures have taken first priority because of legislative mandates to comply with new ecology standards. These costs have been borne entirely by the producers and become one of the major reasons for making them uncompetitive. Therefore, if the country really wants environmental improvements, we should be willing to allow the producers a lower tax burden, to accurately reflect the cost of outlays. The council proposes the following:

"Tax reform should include greater investment tax credits and, to help revitalize industries of strategic importance such as the U.S. copper industry, these credits should generate immediate cash refunds. Also, provisions should be made to allow producers the option to accelerate depreciation for environmentally related equipment. This proposal should permit the option of an immediate write-off of the investment in such equipment on a current dollar basis, thus reflecting the 'true cost' impact on the nation." The American Copper Council, Inc. believes that swift positive action is required of legislative and executive branches of government. Our domestic copper industry needs the support and encouragement of government, if it is to compete in the world today.





being taken between capital investment and the firm's ability to pay dividends. The firm's ability to pay dividends is determined by its earnings and its assets. The firm's earnings are determined by its sales and its costs. The firm's assets are determined by its capital investment and its liabilities. The firm's capital investment is determined by its management and its shareholders. The firm's liabilities are determined by its creditors and its shareholders.

The firm's capital investment is determined by its management and its shareholders. The firm's liabilities are determined by its creditors and its shareholders. The firm's earnings are determined by its sales and its costs. The firm's assets are determined by its capital investment and its liabilities. The firm's ability to pay dividends is determined by its earnings and its assets. The firm's ability to pay dividends is determined by its earnings and its assets.