

# **EXTENSION OF THE EXPORT ADMINISTRATION ACT OF 1969**

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**HEARING**  
BEFORE THE  
**SUBCOMMITTEE ON INTERNATIONAL TRADE**  
OF THE  
**COMMITTEE ON BANKING AND CURRENCY**  
**HOUSE OF REPRESENTATIVES**  
NINETY-SECOND CONGRESS  
SECOND SESSION  
ON  
**EXTENDING THE CONTINUATION OF AUTHORITY FOR THE  
REGULATION OF U.S. EXPORTS UNDER THE EXPORT  
ADMINISTRATION ACT OF 1969**

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**MAY 30, 1972**

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Committee on Banking and Currency



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# EXTENSION OF THE EXPORT ADMINISTRATION ACT OF 1969

TUESDAY, MAY 30, 1972

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON INTERNATIONAL TRADE OF THE  
COMMITTEE ON BANKING AND CURRENCY,  
*Washington, D.C.*

The subcommittee met, pursuant to call, at 10:15 a.m., in room 2128, Rayburn Office Building, Hon. Thomas L. Ashley (chairman of the subcommittee) presiding.

Present: Representatives Ashley, Rees, Koch, Curlin, Blackburn, Brown, and McKinney.

Mr. ASHLEY. The subcommittee will come to order.

This morning's hearings are on the Export Administration Act of 1969. The act has been extended to August 1, 1972, and it is my expectation that the act will be further extended subsequent to these hearings.

There is a rapidly growing recognition that better trade relations with the Communist countries is to the advantage of the United States, and I am heartened to see the administration moving ahead in this area. I have been encouraging expanded trade with Eastern Europe in specific ways since the winter of 1966, and there were many times when the administration has been much less helpful than it is now. I am glad to be witnessing this changed position.

With respect to export controls, it appears that notable progress has been made in reducing the unwarranted regulation of exports since passage of the 1969 act. The Department of Commerce has begun to decontrol many items which have not appeared to be of strategic significance. However, much remains to be done if our exports are to become competitive vis-a-vis our allies in trade with Eastern Europe, the Soviet Union, and China. The process of decontrol appears uneven.

Many of our unilateral controls remain an important impediment to trade.

American exporters are still prevented from selling products which are readily available from other sources.

There is not a sufficiently well organized consultation procedure which brings the technical expertise of our industry to bear on the problems of the COCOM list. Other countries prepare for COCOM meetings by consulting extensively with industry. This is not yet the case in the United States.

The objective of these hearings is to learn more fully of the progress that has been made and of the problems which remain in implementing the Export Administration Act of 1969. To achieve this, a number of questions need to be addressed.

What further actions can be taken to reduce our unilateral controls and COCOM controls?

How can our export control procedures be streamlined so that they are comparable to those of our principal competitors?

What consultation procedures are needed to bring the expertise of industry to bear on these problems?

In view of the declaration in the 1969 act that it is the policy of the United States to encourage trade with all countries with which we have diplomatic or trading relations, I would hope and expect that our witness will deal with these questions in his testimony.

We are pleased to have with us Mr. Rauer H. Meyer, Director of the Office of Export Control, Department of Commerce.

We are glad to have you with us this morning, Mr. Meyer, as we have been on previous occasions. Please proceed as you wish, keeping in mind the need to leave ample time for questioning by members of the subcommittee.

**STATEMENT OF RAUER H. MEYER, DIRECTOR, OFFICE OF EXPORT CONTROL, DEPARTMENT OF COMMERCE**

Mr. MEYER. Thank you, Mr. Chairman.

I welcome this opportunity to testify, on behalf of the Department of Commerce, in support of the continuation of authority for the regulation of U.S. exports under the Export Administration Act of 1969.

I have submitted for the record a full statement. With your permission I will summarize the statement to allow ample time for your questions.

Mr. ASHLEY. Without objection the full statement will appear in the record and you may proceed with your digest.

Mr. MEYER. Continuing statutory authority is needed for several reasons:

First, in the context of the world today, there is still a need to control exports of commodities and technical data in the interest of the United States and free world security. The Department's decontrol program has already eliminated the need for licensing a wide range of peaceful goods for export to East European destinations. There remain, however, many commodities and advanced technologies, the uncontrolled export of which the United States and 14 other free world countries constituting COCOM believe would contribute significantly to the military potential of the Communist countries to the detriment of free world security. In addition, there are a number of other U.S. commodities and technologies which, for a variety of reasons, require continued control in the interest of national security. And the prospect of increased and liberalized trade with Eastern Europe also calls for continued controls to assure that such trade remains peaceful.

Second, the act makes it possible to carry out trade control programs which are part of U.S. foreign policy toward North Vietnam, North Korea, and Cuba. It also permits the exclusion of military-use items from U.S. exports to the Middle East. In support of the Limited Nuclear Test Ban Treaty and the nuclear nonproliferation policy of the United States, it allows export control of commodities and technologies for use in the development and testing of nuclear weapons.

Third, the act authorizes export controls necessary to protect the domestic economy from the excessive drain of scarce commodities and to reduce the serious inflationary impact of abnormal foreign demand. Although this has been used infrequently, there have been occasions when it has been necessary to employ such controls. For example, we have had occasion to control copper and nickel exports under this authority.

In the Department's judgment, the act in its present form provides discretionary authority to permit the President to respond to favorable and unfavorable international developments—effectively, flexibly, and in a timely fashion.

Legislation before this subcommittee would extend the Export Administration Act of 1969 to June 30, 1973, a little more than a year from now. In the Department's judgment, extension of the existing legislation to June 30, 1975, is reasonable and appropriate. Because the extension will date from last June 30, it will in fact, only provide for continuation of authority for about 3 years.

I would like now to summarize the Department's administration of the act since it went into effect on January 1, 1970.

The Export Administration Act of 1969 established a positive policy approach of encouraging trade, while authorizing its restriction only to the extent necessary for national security, foreign policy, and short supply reasons. It expressed a clear sense of the Congress that U.S. export controls and licensing should be liberalized, and the administrative burden of the controls on American businessmen should be reduced.

The Secretary of Commerce, to whom the President delegated the authority to administer the act, has pursued policies and goals that conform, I believe, to those enunciated by the Congress in the act.

The U.S. total trade turnover in 1971 with the countries of Eastern Europe amounted to \$607 million, as compared to \$444.7 million for 1969, the last year of our operations under predecessor legislation. There has been a continual increase in both exports to Eastern Europe and imports from that area, with the increase in exports being the more substantial. Exports rose from \$249 million in 1969 to \$353 million in 1970, and to \$384 million in 1971. Imports rose from \$196 million in 1969 to \$226 million in 1970, but dropped slightly to \$223 million in 1971. Thus, in 1971, the U.S. trade surplus with Eastern Europe was \$161 million.

Last year saw sizable breakthroughs in the licensing of U.S. machinery and technology for the automotive industry of the U.S.S.R., a development deserving special mention.

In June 1971, applications valued at \$88.8 million were approved covering machinery used in producing components for trucks, buses, delivery vans, passenger cars, and other civilian-use vehicles. Later last year, equipment and technical data for foundry equipment, totaling \$72.5 million, and handling equipment, \$52 million, were approved for the ZIL plant.

More noteworthy has been the approval to date of 127 license applications totaling approximately \$1.5 billion covering equipment and data for the Kama River Truck project. This plant is now under construction by the Soviets as part of their ninth 5-year plan—1971-75. It is designed to produce 150,000 heavy diesel trucks a year. The trucks

intended to be manufactured are all civilian in character: a 20-ton semitrailer combination, a 16-ton stake body truck and trailer combination, and a 7-ton capacity dump truck. They fulfill no tactical or combat military role, but are particularly suited to their proposed use in agriculture, industry, and construction. Although these trucks could be employed for intercity freight and other logistical support of the military, their contribution to the Soviet military potential would be limited.

I might note at this point that the United States and the Soviet Union announced on May 23 the formation of a joint commission to devise a comprehensive trade agreement. The first meeting will be in Moscow in July headed by the Secretary of Commerce. Further meetings will be held alternately in Washington and Moscow. Under the terms of the agreement, the joint commission will have these assignments: To negotiate an over all trade agreement, including reciprocal MFN tariff treatment, to negotiate provisions for the establishment of business offices in each country by concerns of the other, and to set up an arbitration mechanism for settling commercial disputes arising from trade.

For the East European area in general, the Department is acting as a communications point between East European trading agencies and American firms. For example, the Department has obtained lists of projects of interest to a number of the East European countries, as well as lists of goods and technologies they would like to purchase, and has sounded out the American firms selected by the East European countries to determine whether these firms would be interested in being considered for specific proposals. The Department has also analyzed the import potential of more than 100 East European products, and has made other U.S. market data available to East European countries. Additional activities have involved the Department's participation in, and support of, various trade fairs in East European countries and a number of U.S. trade missions to this area.

Many specific actions were taken by the Department of Commerce since January 1, 1970, to implement other provisions of the Export Administration Act. Let me identify quickly some of the most significant of these.

The Department has intensified and accelerated its review of commodities for which validated licenses are required for national security reasons with the result that over 2,000 commodities have been decontrolled. Concurrently, we have imposed or tightened controls on commodities and technical data, a relatively small number, that by reason of newly developed or technically advanced features contribute to the military potential of the Communist countries. Numerous steps have been taken and are being taken to reduce the cost of reporting, recordkeeping and export documentation, including the development of a simplified export clearance system that will eliminate custom authentication for all shipments under the Department's jurisdiction. Quarterly reports are submitted to the President and the Congress indicating the items rejected for export to Eastern Europe, whether they were under COCOM control and whether comparable items were available abroad.

Where a foreign availability existed, explanation is given as to why national security questions overrode foreign availability.

The act calls for organizational and procedural changes in the Department for the fullest implementation of the policy of the act.

In response to this, we have established a facilitation branch to coordinate and accelerate efforts to reduce documentation and paperwork and to simplify the process of clearing export shipments.

We have enlarged our East European division which has become a focal point for bringing together U.S. exporters and East European buyers and we have established a regional export promotion group to concentrate on activities in Eastern Europe and Yugoslavia.

The Department has utilized a variety of methods to keep American business fully apprised of changes in export control policy, as the act requires.

These included regulatory publications, quarterly reports, press releases to call attention to important changes, and feature articles in the Department's biweekly magazine.

In addition, Department officials have spoken to numerous gatherings of businessmen, both to explain our policies and to urge firms to increase exports; and we have consulted extensively with trade associations and private firms in connection with the commodity control list review.

The seeking to keep each exporter apprised regarding considerations that might cause denial or lengthy examination of his application, we have instituted standard forms which he can use to request information on the status of his application.

In conclusion, the administration recommends that the Export Administration Act of 1969 be extended to June 30, 1975.

(Mr. Meyer's prepared statement, with additional papers submitted for the record entitled "Legal Enforcement Activities" and "Overview of the Export Control Program" follows:)

STATEMENT OF RAUER H. MEYER, DIRECTOR, OFFICE OF EXPORT CONTROL,  
DEPARTMENT OF COMMERCE, BEFORE THE SUBCOMMITTEE ON INTERNATIONAL  
TRADE OF THE U.S. HOUSE COMMITTEE ON BANKING AND CURRENCY, ON  
MAY 30, 1972.

#### INTRODUCTION

I welcome this opportunity to testify, on behalf of the Department of Commerce, in support of the continuation of authority for the regulation of U.S. exports under the Export Administration Act of 1969.

#### NEED TO EXTEND THE ACT

Continuing statutory authority is needed for several reasons:

First, in the context of the world today, there is still a need to control exports of commodities and technical data in the interest of U.S. and Free World security. The Department's decontrol program has already eliminated the need for licensing a wide range of peaceful goods for export to East European destinations. There remain, however, many commodities and advanced technologies, the uncontrolled export of which the United States and 14 other Free World countries constituting COCOM believe would contribute significantly to the military potential of the Communist countries to the detriment of Free World security. In addition, there are a number of other U.S. commodities and technologies which, for a variety of reasons, require continued control in the interest of

national security. And the prospect of increased and liberalized trade with Eastern Europe also calls for continued controls to assure that such trade remains peaceful.

Second, the Act makes it possible to carry out trade control programs which are part of U.S. foreign policy towards North Vietnam, North Korea, and Cuba. It also permits the exclusion of military-use items from U.S. exports to the Middle East. In support of the Limited Nuclear Test Ban Treaty and the nuclear non-proliferation policy of the United States, it allows export control of commodities and technologies for use in the development and testing of nuclear weapons.

Third, the Act authorizes export controls necessary to protect the domestic economy from the excessive drain of scarce commodities and to reduce the serious inflationary impact of abnormal foreign demand. Although this has been used infrequently, there have been occasions when it has been necessary to employ such controls. For example, we have had occasion to control copper and nickel exports under this authority.

In the Department's judgment, the Act in its present form provides discretionary authority to permit the President to respond to favorable and unfavorable international developments -- effectively, flexibly, and in a timely fashion.

Legislation before this subcommittee would extend the Export Administration Act of 1969 to June 30, 1973, a little more than a year from now. In the Department's judgment, extension of the existing legislation to June 30, 1975, is reasonable and appropriate. Because the extension will date from last June 30, it will, in fact, only provide for continuation of authority for about three years.

#### A POSITIVE POLICY APPROACH

I would like now to report on the Department's administration of the Act since it went into effect on January 1, 1970.

The Export Administration Act of 1969 established a positive policy approach of encouraging trade, while authorizing its restriction only to the extent necessary for national security, foreign policy, and short supply reasons. It expressed a clear sense of the Congress that U.S. export controls and licensing should be liberalized, and that the administrative burden of the controls on American businessmen should be reduced.

The Secretary of Commerce, to whom the President delegated the authority to administer the Act, has pursued policies and goals that conform, I believe, to those enunciated by the Congress in the Act.

U.S. TRADE WITH EASTERN EUROPE

The U.S. total trade turnover in 1971 with the countries of Eastern Europe amounted to \$607 million, as compared to \$444.7 million for 1969, the last year of our operations under predecessor legislation. There has been a continual increase in both exports to Eastern Europe and imports from that area, with the increase in exports being the more substantial. Exports rose from \$249 million in 1969 to \$353 million in 1970, and to \$384 million in 1971. Imports rose from \$196 million in 1969 to \$226 million in 1970, but dropped slightly to \$223 million in 1971. Thus, in 1971, the United States trade surplus with Eastern Europe was \$161 million.

Notwithstanding this favorable trade balance, our total 1971 trade of \$607 million with Eastern Europe represents only about one percent of the U.S. global trade. And, of even greater significance, when one compares this \$607 million to the total 1970 Free World turnover in trade with Eastern Europe of \$17.2 billion, it is apparent that the United States' share is relatively small.

Soviet Union - Kama River

Last year saw sizeable breakthroughs in the licensing of U.S. machinery and technology for the automotive industry of the USSR,

a development deserving special mention.

In June 1971, applications valued at \$88.8 million were approved covering machinery used in producing components for trucks, buses, delivery vans, passenger cars, and other civilian-use vehicles. Included were gearmaking machines, transfer lines, furnaces and other equipment for the Likhachev (ZIL), Gor'kiy (GAZ), and Ul'yanovsk (UAZ) factories. Later last year, equipment and technical data for foundry equipment, totalling \$72.5 million, and handling equipment, \$52 million, were approved for the ZIL plant.

More noteworthy has been the approval to date of 127 license applications covering equipment and data for the Kama River Truck project. This plant is now under construction by the Soviets as part of their 9th Five Year Plan (1971-1975). It is designed to produce 150,000 heavy diesel trucks a year. The trucks intended to be manufactured are all civilian in character: a 20-ton semi-trailer combination, a 16-ton stake body truck and trailer combination, and a 7-ton capacity dump truck. They fulfill no tactical or combat military role, but are particularly suited to their proposed use in agriculture, industry, and construction. Although these trucks could be employed for intercity freight and other logistical support of the military, their contribution to the Soviet military potential would be limited.

The licenses issued to date for the Kama River project total almost \$1.5 billion. There is, however, considerable duplication, in that many firms are competing with other U.S. exporters for the same orders. Moreover, there is no assurance that orders will be obtained in this magnitude, because of extensive competition from other Free World manufacturers.

In considering the export license applications for this project, the Department consulted extensively with other agencies. Special attention was paid to the significance of these proposed exports for our national security. Additionally, the Department took into account the benefits that would accrue to the U.S. economy. The Department concluded that approval was in order because basically the same equipment is available to the Soviets from Western Europe and Japan, and there was the prospect of significant orders being received by U.S. companies. If these were realized, there would be increased employment and industrial stability without detriment to our national security.

#### Other East European Countries

For the area in general, the Department is acting as a communi-

cations point between East European trading agencies and American firms. For example, the Department has obtained lists of projects of interest to a number of the East European countries, as well as lists of goods and technologies they would like to purchase, and has sounded out the American firms selected by the East European countries to determine whether these firms would be interested in being considered for specific proposals. The Department has also analyzed the import potential of more than 100 East European products, and has made other U.S. market data available to East European countries. Additional activities have involved the Department's participation in, and support of, various trade fairs in East European countries and a number of U.S. trade missions to this area. These activities are beginning to bear fruit. Already, U.S. firms have concluded several major commercial deals with East European countries. A number of cooperative joint ventures are in various stages of negotiation in the petroleum, chemical, and automotive fields.

Poland offers significant possibilities for the further development of economic and commercial relations. In the course of several years, the two-way trade volume could very substantially increase. Of particular interest is the Polish agreement, in

principle, for the opening in Warsaw of an American technical and trade center that will provide the Poles with increased access to information on U.S. products and technology. The center would also give visiting U.S. businessmen a marketing base in Poland.

In addition, the Department is planning a Regional Trade Development Center for East Europe to be located in Vienna. This Center will serve both to provide an operational base from which to conduct an expanded trade promotional program in the East European countries and to provide U.S. firms with detailed information on doing business in that area.

Romania affords especially favorable opportunities and prospects for expanded U.S. trade and investments by American firms in Romanian business enterprises. In March 1971, the Romanian Government enacted new foreign trade legislation which, among other things, permits foreign partners in joint ventures to have an equity of 49%, and guarantees them the right of repatriation of capital and profits. At this time, there are a number of U.S. firms negotiating specific projects with considerable likelihood of success. Improved U.S. relations with Romania have made it possible for the United States to accord it more favorable export control treatment than any other East European Country. When about 100

additional entries on the Commodity Control List were decontrolled to that country on May 1, 1971, the list of commodities requiring no validated licenses for export to Romania and Yugoslavia became very similar. (For export control purposes, Yugoslavia is treated as a West European country.) Thus, a wide range of commodities not under international COCOM control may be shipped under general license to Romania.

#### The People's Republic of China

A summary of major efforts to increase peaceful trade and economic relations with the Communist countries would not be complete without mention of the President's historic actions toward the People's Republic of China (PRC). In April 1971, he announced his decision to expedite visas for visitors from the PRC to the U.S., to relax currency controls to allow use of dollars by the PRC, to end restrictions on U.S. oil companies fueling ships or aircraft going to or from the PRC (except for certain ones involved in trade with North Korea, North Vietnam, or Cuba), and to permit U.S. carriers to transport Chinese cargoes between non-Chinese ports and U.S.-owned foreign flag carriers to visit Chinese ports. In June 1971, he announced a list of commodities which could be freely exported to the PRC without advance Commerce permission, declared

that items not included in this general license list would be considered for specific licenses, and announced that all imports from the PRC could enter the U.S. on the same basis as goods from other Communist countries. In February 1972, the President announced his decision to extend to the PRC the general licenses and other export control regulations applicable to the USSR and other East European countries (except Poland and Romania for which trade controls are less restrictive).

Since that date, direct exports to the PRC have totalled \$2.2 million. However, there has been no appreciable volume of applications to export direct to this destination. There have been some export transactions involving U.S. firms through third countries.

#### 50-50 Shipping Restriction

During the 1969 Hearings, there was strong Congressional sentiment toward the termination of the requirement that at least 50 percent of all wheat and feed grains sold to the Soviet Union and most other East European countries be carried in U.S. vessels. This was done in June 1971. A few months later the USSR placed orders for approximately \$125 million with two U.S. firms for corn, barley, and oats. Payment will be in U.S. dollars.

FOREIGN POLICY CONTROLS

One of the policy statements in the Export Administration Act is to use export controls "to the extent necessary to further significantly the foreign policy of the United States and to fulfill its international responsibilities." The Department of Commerce, of course, looks to the State Department for guidance in carrying out this aspect of the Act.

While the virtual embargo on trade with Cuba, North Vietnam and North Korea is a result of both national security and foreign policy considerations, there are other special country controls based solely on foreign policy. These include:

Southern Rhodesia

In conformity with the United Nations Security Council Resolutions of 1965, 1966, and 1968, there is a general embargo on all shipments to Southern Rhodesia except for certain published media and commodities for humanitarian, educational, charitable, or medical uses.

Republic of South Africa

In conformity with the United Nations Security Council Resolution of 1963, the United States has imposed an embargo on shipments to the Republic of South Africa of arms, munitions, military

equipment, and materials for their manufacture and maintenance. While the major brunt of this embargo policy is borne by the Department of State's Office of Munitions Control, the Commerce Department requires prior approval for the shipment to this destination of commodities under its jurisdiction that fall in these commodity areas, even though some items may be exported to other Free World destinations under general license. The general policy is to deny applications for such commodities when there is a likelihood of military end-use.

#### The Middle East

Since 1968, the Department has maintained control over exports to this area that are likely to be used for military purposes.

#### Portuguese African territories

As in the case of the Middle East, the Department maintains surveillance over exports that are likely to be used for military purposes.

#### Nuclear-related Commodities

In support of the "Limited Nuclear Test Ban Treaty" and the U.S. nuclear nonproliferation policy, the Department has, since 1965, exercised export controls to all destinations over commo-

ties and technical data used in the development or testing of nuclear weapons. These controls also extend to equipment and technology relating to maritime nuclear propulsion projects.

#### SHORT SUPPLY CONTROLS

As required by the Export Administration Act, the Department of Commerce maintains surveillance of the domestic supply-demand situation of potentially troublesome commodities. This is to determine whether controls on their exports are necessary "to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand." For example, in November 1970, in order to monitor exports of ferrous scrap and coal and coke, the Department instituted a special reporting requirement for exports of these commodities. In January 1972, subsequent to an analysis of market conditions, this report was eliminated for ferrous scrap.

On the basis of its evaluation of the black walnut supply situation following public hearings in October 1970, the Department decided that the imposition of quota restrictions on exports of walnut logs, lumber, and veneer was not justified at that time. Nevertheless, the Department concluded that the domestic consumption of hardwood timber should be carefully watched, and that the validated export license requirement should be continued so that export

trends can be monitored in accordance with the Department's responsibility under the Act. Following a survey of domestic consumption and production of walnut made throughout the industry in the latter part of June 1971, the Department discontinued the validated license requirement.

Copper and nickel were the only commodities determined to require export quota or other restrictive limitations under the short supply provision of the Act during the period after January 1, 1970. In the Fall of 1970, however, the export quotas and restrictive limitations were removed from these commodities. This was made possible by their improved foreign and domestic supply situations. They were kept under validated license control, however, so that the quantities being exported were constantly monitored. The supply situation for nickel continued to the point where, by September 1971, these commodities were under validated license control only to Southern Rhodesia, Cuba, and the Communist Asian areas. In April 1971, certain copper fabricated products also were decontrolled to all destinations, except Southern Rhodesia, Cuba, and the Communist Asian areas, and in January 1972, the remaining copper commodities, including scrap, were decontrolled to the same level.

In late 1971, Argentina curtailed its cattlehide exports. As a result, a number of hide importers abroad turned to the United

States as a source of hides. At the same time the domestic price began to increase. The Department has kept a close watch on the supply-demand situation within the United States to determine whether the short supply provisions of the Act should be invoked. As part of this watch, the Department has had a number of meetings with industry and has directed a questionnaire to all segments of the leather and shoe industries for information regarding shipments, orders, and inventories. The data have not yet been fully tabulated and analyzed.

#### ANTIBOYCOTT PROVISIONS

The Department continues to administer the antiboycott provisions of the Act which were carried over from the previous legislation. A review of the information being submitted on multiple transactions concerning boycotts, however, indicated that much of the detailed information was not necessary for the purposes for which the report is required. Accordingly, a simplified reporting procedure was devised that would not only reduce the time required by exporters to compile the report, but also provide the Department with more accessible and meaningful data.

#### COMMERCE ADMINISTRATION OF THE ACT

Many specific actions were taken by the Department of Commerce

since January 1, 1970, to implement the provisions of the Export Administration Act. Let me relate some of these now.

Commodity Control List Review

An essential action in encouraging trade as the Congress desired has been the review and pruning of the list of controlled commodities pursuant to Section 4(a)(1) of the Act. Early in 1970, the Department intensified and accelerated its review of commodities for which validated licenses have been required for national security reasons before they may be exported. As a result, over 2,000 commodities have been decontrolled from validated to general license for export to various destinations, including the USSR, other Eastern European countries and the PRC. The decontrolled commodities include many types of chemicals, semi-fabricated and finished metal products, electronic instruments, electrical and non-electrical machinery, and agricultural and transportation equipment. The review is continuing.

Our intent in the list review has been to remove from validated export license control all commodities whose control is not necessary to achieve the policy objectives of the Act. The review has been conducted by the Department of Commerce, with information and advice from other U.S. Government departments and agencies. Even though a substantial percentage of the entries on the Commodity

Control List has now been reviewed, it should be pointed out that the list is dynamic, and will continue to change after the initial review has been completed. It is difficult to estimate the completion date of the review, because the remaining commodities are generally more complex and present special problems.

Congress recognized, quite appropriately, during the debates which preceded the enactment of the Export Administration Act, that it was not feasible to expect a review of such magnitude to be finished within a short period of time. It was understood that the review was to be undertaken as expeditiously as possible, and that priority should be given to the daily processing of export license applications. As then contemplated, priority has been given by the Department to the review of specific non-COCOM commodities on the control list which are, prima facie, of little or no strategic use, or are of potential importance in East-West trade as evidenced by export license applications and advice from export firms. The receipt of license applications is used on a selective basis to trigger a review of controls over particular commodities.

Concurrent with these decontrol activities, the Department has had occasion to impose or tighten controls over a limited

number of other commodities and technical data that, by reason of newly-developed or technically advanced features, could contribute significantly to the military potential of the Communist countries to the detriment of our national security.

Reduction of Reporting, Recordkeeping, and Documentation Costs

As called for by Section 7(d) of the Act, numerous steps have been taken to reduce the cost of reporting, recordkeeping, and export documentation. To reduce the documentation burden, exporters with a high volume of shipments have been permitted to use monthly summaries, instead of individual Shippers' Export Declarations, to record their exports. The number of export shipments made under the new procedure is approximately 18,000 per month. Additionally, the exemption from filing Shippers' Export Declarations covering general license shipments to the free world has been increased from \$100 to \$250.

To facilitate paperwork, exporters or their agents have been authorized to submit Shipper's Export Declarations covering general license exports to the free world directly to carriers without prior Customs authentication, and a far-ranging simplified export clearance system is now being developed in Commerce that will eliminate Customs authentication for all shipments under the Department's jurisdiction to all destinations.

Other significant documentation or record-keeping changes that have been made include the following:

- Essential records must be kept for only two years instead of three.
- Validity periods for most forms of export licenses and supporting documents were doubled.
- Exporters may certify to a Customs Office that the license is on file at another port, eliminating the need for a re-release from one Customs Office to the other.
- The exemption for submission of a supporting document from the prospective consignee was raised from \$500 to \$1000.
- A standard form was introduced to simplify submission and processing of reexport requests.
- A broad new general license was established to facilitate a variety of temporary exports.
- The format of the Commodity Control List was revised and condensed to simplify identification of commodities and preparation of license applications, and to aid exporters in automation of order processing.
- Declarations are no longer required for foreign-origin shipments moving intransit through the United States.
- Cargo may now be loaded on the exporting carrier prior

to filing of the export declaration, provided the declaration is filed before departure.

- Supporting documentation for license applications is no longer required for most commodities that will be delivered directly to institutions of higher learning in free world countries.
- The scope of a broad gauge Distribution License was enlarged to cover exports and reexports to most free world countries, and firms which had obtained more than 100 licenses in 1970 were encouraged, by letter, to consider applying for this license.

Principally as a result of the commodity decontrol program and the introduction and subsequent expansion of the distribution license, the export trade now files far fewer individual export license applications than previously. In 1969, for example, the Department received an average of about 580 applications per day. We now receive approximately 300 per day, but the Department's workload has not been reduced in like proportion. Whereas there has been nearly a 50 percent drop in total intake, East European applications, which are becoming more difficult and time-consuming to process, have been cut only about 20 percent.

Coupled with the reduced volume of applications have been some procedural changes in the internal processing and review of applications designed to speed up the licensing action and thus reduce the exporter's risk of losing foreign orders. A survey made last month indicated that 59% of all export license applications, amendments, and reexport requests were processed within two working days; 89% within 5 working days, and 97% within 15 working days.

Export license applications for Eastern Europe often pose technical or policy problems which require additional time to process. The same survey showed that 8% of such applications were acted upon within two working days, 32% within five working days, and 68% within 15 working days.

Thus, almost one-third of the license applications for Eastern Europe were still under consideration three weeks after receipt in the Department. Most of these either were lacking in technical information when received, covered highly strategic commodities, or raised policy issues. Heretofore, a license application to export many of these would have been summarily denied. This fact needs to be borne in mind in evaluating the delays involved in processing such applications. These delays are really occasioned by our seeking, often in consultation with

other U.S. government agencies and, when appropriate, with applicant firms, to bring together all information bearing on each such particular transaction, to examine carefully the commodity to be exported, and to determine whether the application merits favorable action, rather than peremptory denial.

#### Reporting the Reasons for Denials of Export Applications

In conformity with the Act, license applications are generally approved for Eastern Europe when we find that, even though the items to be exported have potential strategic as well as civilian uses, comparable items are readily available from other Free World sources and the proposed exports are for peaceful purposes. Section 4(b) of the Act authorizes denial of applications for exports which the President determines would be detrimental to national security, regardless of foreign availability; but it requires that the reasons for such denials shall be reported to the Congress in the quarterly report following the decision.

Since the Act went into effect, the Department has given increased emphasis and consideration to foreign availability in deciding whether, from the security viewpoint, proposed exports of commodities and technical data should be licensed. The Department prepares quarterly reports to the President and the Congress

indicating the items which have been rejected for export to Eastern Europe and whether they were under COCOM control. If not controlled by COCOM, we have identified the items for which comparable items were, or were not, available abroad. When foreign availability existed, an explanation has been added as to why the national security considerations overrode the foreign availability, thereby justifying the denial actions and the retention of control over the affected items.

During 1971, license applications for the export to Eastern Europe of commodities valued at \$6.6 million were denied for national security reasons. All but \$328 thousand worth of these, or 95%, were under international COCOM control. Of the non-COCOM-controlled commodities, \$240 thousand worth were not available from foreign sources. This left \$88 thousand worth of commodities which were rejected for security reasons, notwithstanding their foreign availability. These have been identified, and the reasons for their denial and retention under control have been explained in the quarterly reports of the Department pursuant to the Act.

#### Organizational and Procedural Changes

Section 4(a)(1) of the Act calls for such organizational and procedural changes in the Department as the Secretary of Commerce

determines are necessary for the fullest implementation of the policy of the Act and with a view to promoting trade with all nations with which the United States is engaged in trade. Pursuant to this, a new Facilitation Branch has been established in the Compliance Division of the Office of Export Control. Its primary functions are to coordinate and accelerate efforts to reduce documentation and paperwork, and to simplify further the process of clearing export shipments.

Additionally, to provide assistance to exporters interested in selling to Eastern Europe, the Eastern Europe Division in the Office of International Commercial Relations has been enlarged, with desk officers specializing in each of the major countries. The Division has been made a focal point for bringing together U.S. exporters and East European buyers.

To promote sales of U.S. goods in Eastern Europe, the Office of International Trade Promotion has established a Regional Promotion Group to concentrate on activities in Eastern Europe and Yugoslavia. Through an increased coordinated program of exhibitions, seminars, catalog shows, trade missions, exchange of commercial and product information, and combinations of these techniques, the Group is increasing the U.S. exporters' awareness of opportunities in Eastern Europe and providing means of bringing

U.S. products to the attention of East European buyers.

When the new simplified export clearance system becomes effective, Customs, as noted before, will no longer review and authenticate Shippers' Export Declarations. It is anticipated, therefore, that the Office of Export Control will need to assume compliance work formerly performed for us by that agency. In this connection, attention is also being given to the expansion of preventive enforcement. This would include additional efforts in making exporters and their foreign affiliates aware of the essential features of our regulations, and alerting them in advance regarding probable illegal transactions. A separate report on enforcement actions will be provided to the Committee.

#### Apprising Business of Policy and Procedural Changes

As called for by Section 4(a)(2) of the Act, the Department has utilized a variety of methods to keep American business "fully apprised of changes in export control policy and procedures instituted in conformity with the Act with a view to encouraging the widest possible trade." The Department has an extensive publicity program through which the business community is kept informed. Policy and procedural changes in export regulations are published in the Federal Register, and in Export Control

Bulletins sent to exporters on a subscription basis, and made available to them at the Department's Field Offices.

In addition to the reports on export control that are submitted to Congress every three months by the Secretary, press releases are issued whenever necessary to call attention to important measures. Feature articles are printed in the Department's biweekly magazine, Commerce Today, and the trade opportunities section in that magazine has been expanded to give better coverage of Eastern Europe. In addition, the Department publishes Overseas Business Reports on trade of the United States with Eastern Europe on an annual basis. Other Department officials and I have spoken to numerous gatherings of businessmen and exporters throughout the country. Information regarding important export control policy and procedural changes is available overseas to American business through the U.S. Foreign Service posts.

#### Consulting with Government Agencies and Private Industry

In carrying out Section 5(a) of the Act, the Department seeks information and advice from other U.S. Government departments and agencies with regard to what should be controlled under the Act and the extent to which exports should be limited. The Department's interdepartmental Advisory Committee on Export Policy structure is

the established channel for formal consultation on policy and major export transactions. The Export Administration Review Board, established by Presidential Executive Order and comprising the Secretaries of Commerce (Chairman), State, and Defense, considers major policy problems. On licensing and technical matters, Commerce personnel regularly consult with appropriate personnel in other agencies.

The Export Administration Act added a provision that "the President shall from time to time seek information and advice from various segments of private industry in connection with the making of these determinations". As part of its standard operating procedures, the Department consults extensively with the trade in a generally informal and flexible fashion. For example, in connection with the Commodity Control List review, trade associations and private firms, particularly in the aerospace, industrial machinery, electronics, and chemical industries, have been invited to submit their recommendations and to participate in the fact-finding process. Exporters have been invited to give us their suggestions for improving our policies and procedures under the Act and to supply technical advice and information essential to our control judgments. Many helpful suggestions have been received. We are endeavoring to follow them to the extent feasible and consistent with statutory requirements.

Keeping Exporters Informed

To implement Section 9 of the Act, dealing with information to exporters, the Department initially sought informally to keep each exporter apprised regarding (1) considerations that might cause denial or lengthy examination of his application; (2) in event of undue delay, the circumstances arising during our consideration of his application which are cause for denial or further examination; and (3) in event of denial, the reasons therefor. In addition, we have tried to give each exporter full opportunity to present evidence and information he believes will help to resolve problems or questions which are, or may be, connected with his license application. Our objective here is to keep open the channels of communication with the exporting community. In June 1970, as part of this effort, the Department's Office of Export Control instituted a new, formal procedure to facilitate inquiries from exporters. This procedure hinges on a standard form which an exporter can use to request information on the status of his application. In conjunction with this, a regulation was issued explaining the use of the form and the principal considerations that may occasion lengthy examination or rejection of an application. The form is frequently supplemented with additional details when required and when feasible.

CONCLUSION

In conclusion, the Administration recommends that the Export Administration Act of 1969 be extended to June 30, 1975.

U.S. DEPARTMENT OF COMMERCE  
WASHINGTON, D.C.

LEGAL ENFORCEMENT ACTIVITIES

Both criminal and civil penalties as well as administrative remedial sanctions may be invoked against violators of the export control regulations. Under the Export Administration Act, violators are punishable by either fine or imprisonment, or both. By regulation, provision has been made for the denial of U.S. export privileges to American and foreign companies and individuals pursuant to administrative compliance proceedings instituted in connection with violations of the export regulations. In addition, U.S. District Directors of Customs have authority to seize merchandise whenever an attempt is made to export or ship from or take out of the United States such merchandise in violation of law. In such instances, the merchandise may either be forfeited to the Government or returned to the owner after payment of a penalty and the seizure costs.

This report is concerned with export control enforcement cases handled between January 1, 1969, and December 30, 1971. Earlier cases were reported to this committee at the 1969 hearings on the prior extension and amendment of the Act.

During this three-year period, 49 temporary, indefinite, and final export denial orders were issued against 119 American and foreign individuals and companies for various kinds of violations of the export control regulations, including actual or attempted transshipments to the Communist countries and areas in Eastern Europe and the Far East as well as Cuba. Other orders involved such violations as misuse of export licenses, falsification of Shipper's Export Declarations and other export control documents, violations of outstanding denial orders, smuggling of goods from the United States, and other culpably negligent or willful offenses not necessarily affecting the national security interests of the United States. In addition, there were 6 orders extending existing temporary orders. The civil penalty authority provided for in the 1965 extension of the Act has been invoked 14 times during these three years.

The orders which deny export privileges describe the nature of the case, and also provide for the denial to the respondent of the "privileges of participating, directly or indirectly, in any manner or capacity, in any transaction involving commodities or technical data in whole or in part exported or to be exported from the United States to any foreign destination, including Canada" for a determined period of time (with or without probationary terms) ranging up to the entire duration of U.S. export controls.

All denial orders are made applicable not only to the respondents but also, to prevent evasion thereof, to any other individual or firm with which he

is or may become "related by affiliation, ownership, control, position of responsibility, or other connection in the conduct of trade or services connected therewith." Each denial order also contains a notice that no third person may perform any acts with or for the benefit of the denied party which he is prohibited from doing by the order. During 1969-1971, "related party" orders were issued involving 38 foreign firms and individuals. There were also 8 shipments valued at \$285,858 recalled to the United States prior to delivery abroad, or ordered to be unladen from the carrier prior to exportation, pursuant to the authority of the Department to take such action where reasonable grounds exist for belief that the merchandise was ultimately to be delivered to a proscribed destination.

Final orders are issued following a detailed notice of charges to the respondent, a hearing based thereon, and findings that violations have occurred. Temporary orders are issued, when necessary, without notice, to protect the public interest pending the continuation or conclusion of an investigative or administrative or judicial proceeding. Indefinite orders are issued when companies or individuals fail or refuse to answer written interrogatories of the Department regarding their participation in suspected transshipments or other unauthorized transactions and remain in effect until the party answers or gives a satisfactory reason for not doing so. Orders imposing civil penalties are also issued after a detailed notice of the violations committed has been furnished the respondent and he has been afforded the opportunity for a hearing, not only in order to present any explanation in mitigation but also to discuss the violations.

The full text of each denial order is published in the Federal Register, and the Department issues a press release at the time the denial order is issued. Additionally, a summary of each denial case is contained in the Quarterly Reports submitted by the Department to the Congress in accordance with Section 10 of the Export Administration Act. The Quarterly Reports also contain a statement of the actions taken in criminal cases involving export control violations. The lists of firms and individuals in the United States and abroad currently under export denial orders, the respective Federal Register citations, and the export privileges denied (and probation periods) are regularly published in the Export Control Regulations issued by the Bureau of International Commerce. These lists are separately reprinted and receive wide dissemination here and abroad. Orders imposing a civil penalty are not published in the Federal Register. However, a press release is issued in each case and the order is reported in the Quarterly Reports to Congress.

On December 31, 1971, the Compliance Division of the Office of Export Control had 183 active investigations in process. Of these, 20 involved alleged or known cases of diversion to a proscribed destination, while the remaining 163 involved misrepresentation, alteration of documents, smuggling, violation of denial orders, and similar offenses including possible civil penalty sanctions.

As of December 31, 1971, 12 cases were with the Office of the General Counsel of the Department being reviewed for administrative compliance proceedings and/or criminal or other disposition, or were pending in the Office of the Compliance Commissioner awaiting the final outcome of administrative proceedings.

By a separate Federal Law, the Bureau of Customs is authorized to seize, and have forfeited to the United States, commodities attempted to be exported in violation of export controls. In lieu of forfeiture, the Bureau of Customs also has authority, after seizure has been made, to compromise the seizure action and release the merchandise to the owner on payment of a monetary penalty. This seizure sanction has continued to be applied in appropriate cases and during the past three years, 479 seizures were made involving U.S. goods valued at more than \$1,341,412. In the great majority of cases, the seizure action is compromised by a penalty imposition. Criminal prosecutions, administrative export denial proceedings, and civil penalties are contemplated by the Export Administration Act and the regulations issued thereunder. Criminal prosecutions are traditionally for punitive and deterrent purposes. Administrative proceedings and civil penalties are, however, primarily remedial and deterrent in nature, and are designed to protect the integrity of export controls against abuse through monetary fines or by denying export privileges to those who, through willful or careless misconduct, have demonstrated their unreliability as shippers, handlers, or recipients of U.S.-origin commodities and technical data. The decision as to what type of proceedings should be instituted against alleged violators depends, among other things, on the nature and gravity of the offense, the intent, past record, and reputation of the offender, and, what is especially significant in this field of international offenses, the availability of the kind and quantity of evidence that is required by Federal Courts in criminal cases.

In considering the utility of the criminal sanction as a means of enforcing the Export Administration Act, it should be borne in mind that such cases cannot feasibly be brought against foreign persons not subject to U.S. jurisdiction for prosecution, and that the success of such prosecutions against American parties is substantially limited by the difficulty of producing for appearance and use in our courts the necessary witnesses and documentary evidence as required by our Constitution and laws in criminal cases. Witnesses and documents located in foreign countries are often the only sources of evidence to establish that U.S.-origin goods were transhipped, diverted, or reexported to the Communist countries and areas in Eastern Europe and the Far East or Cuba, and the identity of the persons responsible therefor. Inability to compel attendance in our courts of such foreign witnesses and the production here of such foreign documentary evidence, by subpoena or otherwise, may make it impossible for the Government to prove a criminal case since hearsay evidence is inadmissible, depositions are confined to very narrow limits, and in some cases only evidence classified for security and foreign policy reasons may be available which could not be used without breach of classification.

The national security and foreign policy objectives of the Act would be frustrated if known transshippers and other violators could not be prevented from continuing to export, handle, receive, and reexport U.S.-origin commodities and technical data. Where criminal prosecution would not be appropriate or would not be successful for the above reasons, administrative proceedings to deny export privileges are instituted. The initiation and conduct of such hearings are governed by regulations promulgated under the Export Administration Act. These provide for adequate notice of the charges and opportunity for hearing. The hearings are conducted by an impartial examiner in accordance with general principles of administrative law. Probative hearsay evidence is accepted in such cases.

In some cases essential elements of the offense or necessary links in the chain of guilt are classified information reported by U.S. intelligence and investigative agencies operating here and abroad. Often such information comes through foreign governments. It is required by law and Executive Order and for national security and foreign policy reasons to protect the source of this information. In such instances, pursuant to regulation, the Department offers in evidence as part of the Government's case an unclassified summary of the classified information. The hearing officer compares the summary with the original classified report, and if he is satisfied that the summary is fair and accurate and omits only what is required to be kept confidential, the summary is received into evidence. This is available to the respondent for use in presenting his defense of the charges.

This procedure is considered to provide a fair and practicable means to use classified information of this type when its use is necessary to accomplish the national security and foreign policy objectives of the Act. The use of such information in this way is deemed to be authorized by the provisions of the Export Administration Act, construed in the light of its legislative history, as well as by general principles of administrative law regarding the use of classified information in cases involving national security and foreign policy.

The Department has found that both civil penalties and administrative export denial proceedings are an effective means of enforcing the Export Administration Act, not only because of the substantial economic impact of denial orders on the American and foreign firms directly affected, but also through the deterrent impact of publicity.

Summaries of the administrative export denial orders issued during 1969-1971, the criminal cases disposed of during 1969-1971 or pending as of December 31, 1971, and civil penalties imposed during 1969-1971 are contained in the attached lists.

ADMINISTRATIVE EXPORT DENIAL ORDERS ISSUED DURING 1969, 1970 and 1971

Produits Chimiques Industriels et Agricoles S.A. (PROCIDA)  
Puteaux, France

On June 25, 1969, this firm, a manufacturer of agricultural chemicals with offices in Puteaux and factories in Marseilles and Beaucaire, was denied all U.S. export privileges for three years, with conditional restoration after five months. Investigation by the Department disclosed that in 1967 PROCIDA obtained 190 tons of chlordane from a U.S. supplier. The invoices for the material bore notices that distribution to certain destinations, including Cuba, was prohibited. Further, a responsible employee of PROCIDA knowingly misinformed the U.S. supplier that the ultimate destination of the product to be formulated from the chlordane was France and West Africa while knowing that the finished product was intended to be exported to Cuba, which was done. The chlordane was used to formulate an insecticide of which it was the only active ingredient and represented 93 percent of the final value. Because of the quantity, importance, and relative value of the chlordane in the finished product, it was held that the prohibition against reexportation applied to the finished product as well as to the chlordane itself.

Roland Werkstaetten GmbH, Bremen, Federal Republic of Germany  
Herbert Greve, Hamburg, Federal Republic of Germany

As of July 28, 1969, this firm and its operator were denied all U.S. export privileges for a period of seven years, with the provision that they could apply for restoration of privileges after four years while remaining on probation for the balance of the seven-year period. The Department's investigation showed that Greve, acting for the firm, unlawfully disposed of certain U.S.-origin precision grinding machines. The machines in question were exported to Greve in Bremen, covered by validated export licenses issued on the basis of certifications by Greve that the machines would be used in production facilities in the Federal Republic of Germany. Greve, however, sold the machines to a Swiss firm without prior notification to, or authorization from, the Department as required by the Export Control Regulations. Subsequently, the machines were diverted to a Communist country, a destination for which the Department would not have granted re-export approval.

Johnston (formerly known as Johnston Testers)  
Houston, Texas

On January 22, 1970, this firm, a U.S. distributor of oil well drilling and gas field equipment, was fined \$8,000 and was also denied all U.S.

export privileges for a period of four months and placed on probation until February 1, 1973. The sanction was based on charges by the Department that the firm made unauthorized exportations of such equipment, valued at \$66,000, for the benefit of a West German firm that had been prohibited from dealing in U.S.-origin goods by a previous denial order. The West German firm, Petroservice International GmbH (PSI) of Wiesbaden, had been negotiating with Johnston for the purchase of the equipment prior to July 1967, when it was placed under denial. After the denial order was imposed, however, PSI obtained the services of an unwitting intermediary in England in order to consummate the transaction. Investigation by the Department established that Johnston was aware that PSI had remained as the true party in interest, but completed the negotiations through the English firm and made four exportations at various times in 1967 and 1968. Johnston did not contest the charges and consented to the issuance of the order.

Snam Progetti S.p.A  
Milan, Italy

A consent order, resulting from charges by the Department of violations of U.S. export control technical data regulations, was entered against this firm on January 28, 1970. The order did not prohibit exports from the U.S. to the firm, a large Italian engineering company, but provided that such sanctions might be imposed summarily without notice in the event of future violations by the respondent or by any companies which it controls. The firm was charged with having used, without the required prior approval of the Department, certain U.S.-origin technology for the design and construction of an ethylene oxide and glycols plant in Czechoslovakia. The technology had been obtained previously by Snam from a New York firm to construct a similar plant in Gala, Sicily. Snam, a member of the ENI group of integrated companies controlled by the Italian Government, develops, prepares, and sells petrochemical plant technology throughout the world. Under the terms of the order, Snam agreed that it would not sell, deliver, or release any U.S.-origin technical data without the necessary permission, when required, by U.S. Export Control Regulations.

Masaaki Ono, Tokyo, Japan  
Kazuo Iida, Tokyo, Japan  
Masaji Nagasaka, Tokyo, Japan  
Takeo Kawasaki, Tokyo, Japan  
Isao Kanno, Tokyo, Japan  
Nihon Tokushu Denki K.K., Tokyo, Japan  
Shinwa Tsusho (Yungen Kaisha), Tokyo, Japan  
Japan Holst K.K., Tokyo Japan  
Meikon Shokai K.K., Tokyo, Japan

These five individuals and four firms were denied all U.S. export privileges by an order entered on February 24, 1970, for violations of the ex-

port control regulations. The denial action was taken as a result of the illegal participation by the respondents in transactions involving the handling and disposition of U.S.-origin strategically-rated electronic equipment and the making of false statements in the course of the investigation conducted by the Department into these transactions. Respondent Iida had been denied all U.S. export privileges for an indefinite period in 1965 because of his failure to account for the disposition of strategically-rated U.S.-origin goods believed to have been reexported from Japan to the People's Republic of China. The denial restrictions against Iida had then been made applicable to Nagasaka because of his close business association with the latter. Thereafter, in 1965-66, Nagasaka, for the purpose of evading the restrictions against him, engaged Ono and his firm, Nihon Tokushu Denki K.K., to obtain certain strategically-rated electronic equipment from the U.S. Purchase orders for such equipment, valued at over \$200,000, were placed by Ono with various U.S. suppliers. Equipment valued at about \$80,000 had already been exported from the U.S. when Nagasaka's participation was discovered by the Department. The proposed export of the remainder of the equipment was prevented by the Department. The Department's investigation disclosed that Iida had received some of the equipment and had participated in financing the purchase of other equipment. The intended and ultimate disposition of the equipment could not be established, however, as the parties either refused to cooperate or made false statements. The order provided that Nagasaka and Iida be prohibited from participating in transactions involving U.S.-origin commodities and technical data for the duration of export controls. Similar restrictions were applied for a period of five years to Ono, Nihon Tokushu Denki K.K., and Kawasaki, and to Kanno for a period of six months. In order to prevent evasion of the restrictions, the order was made applicable to the other above-named parties, with which one of the principals is connected.

Sercel S.A. (Societe D'Etudes Recherches et Constructions Electroniques),  
Montrouge and Carquefou, France  
Robert Paule, Courbevoie, France

In two separate but related orders issued on February 25, 1970, this firm and individual were restricted from participating in U.S. export transactions for one year and placed on probation for two years thereafter. During 1965-67, Sercel, a large French manufacturer of scientific equipment, obtained U.S.-origin strategically-rated electronic equipment that it used in the production of seismic exploration apparatus it exported to the People's Republic of China in contravention of applicable U.S. Export Control Regulations. In the course of the related investigations conducted by the Department, both Sercel and Robert Paule, its former sales manager, gave false information in reply to formal interrogatories concerning the ultimate disposition of the U.S.-origin equipment. The violations were admitted by both parties.

Jouko Satukangas; Me-Ra-Oy Muntajatehdas, Helsinki, Finland

On May 1, 1970, Jouko Satukangas, owner and managing director, and the firm Me-Ra-Oy of Helsinki, a manufacturer of transformers and a fabricator of metals, were denied all U.S. export privileges in connection with the unauthorized disposition of U.S.-origin strategically-rated generators. Satukangas ordered the generators from a U.S. supplier, furnishing an end-use statement representing that the generators would be used by Me-Ra-Oy in its factory and gave assurances that if there was any change of plans for use the U.S. supplier would be so notified. Upon arrival of the generators in Helsinki, they were turned over by Satukangas to a denied party in Helsinki who had been subject to an order denying participation in U.S. export transactions since 1965. The Department held that Satukangas' failure to notify either the U.S. supplier or the Department of the change in intended end-use involving a denied party constituted an unauthorized disposition of the generators. The denial period was for three years with the proviso that after one year the parties could apply for conditional restoration of privileges. Shortly after the order was issued, the parties submitted evidence which mitigated their culpability and on August 27, 1970, effective denial was terminated and they were placed on probation until May 8, 1973.

Manfred Hardt and Werner Hardt, Wiesbaden, Federal Republic of Germany  
Caramant Gesellschaft fur Technik und Industrie GmbH & Co., KG, Wiesbaden,  
Federal Republic of Germany  
Michael Schmidt-Sandler and Joseph S. Versch, Garmisch-Partenkirchen, FRG  
Petroservice International GmbH, Wiesbaden, Federal Republic of Germany

In two separate but related orders issued on May 22, 1970, the named two firms and four individuals, then or formerly connected with the firms, were denied all U.S. export privileges for the duration of U.S. export controls. These orders continued the restrictions of outstanding denial orders against all of the parties. In some instances, the earlier orders were for proven violations and in others the orders were temporary for suspected violations. The parties were charged by the Department with numerous violations of the regulations as well as the previous denial orders. Manfred Hardt and Joseph Versch, both acting for Petroservice International, participated in the unauthorized reexportation from the Federal Republic of Germany to East Germany of U.S.-origin strategically-rated seismographic equipment after having ordered and caused the export of the equipment, valued at \$75,000, from the U.S. After the equipment was delivered to East Germany, Manfred and Werner Hardt, Versch and Schmidt-Sandler sought to obtain servicing and parts in further violation of U.S. law. In another transaction involving exportation from the U.S. of strategically-rated oil and gas field equipment valued at \$69,000, these individuals, acting for Petroservice International, evaded restrictions of denial orders by covering their participation in the transaction by dealing with the U.S. supplier through an intermediary company in England. The Caramant firm violated the restrictions against it on several

occasions by ordering and receiving commodities from the U.S. The Department established that Versch, Schmidt-Sandler, and Manfred Hardt made false and misleading statements in connection with the investigation of certain of these transactions. To prevent evasion of the denial order against Petroservice International, the prohibitions of the order were made applicable to the firm Interlingnum Etablissement of Vaduz, Liechtenstein, which had a 98 percent ownership interest in Petroservice International.

Hans Borkmann  
Hamburg, Federal Republic of Germany

By the terms of an order effective July 16, 1970, this individual, a West German trader, was denied all U.S. export privileges for five years with the provision that after one year he may apply for conditional restoration of privileges while he remains on probation. The present order continued the restrictions of earlier temporary and indefinite orders issued against him in the course of proceedings in which he was charged with violations of export control regulations. Borkmann was charged by the Department with attempting to obtain U.S.-origin electronic communications equipment in violation of an indefinite denial order outstanding against him at the time. He sought to evade the restrictions against him by using an intermediary to negotiate orders with two U.S. suppliers.

Pierre M. Stevens  
New York, New York

On August 27, 1970, the above-named individual, a Belgian national who had resided in the U.S. for several years, was denied all U.S. export privileges for the duration of export controls. The denial order resulted from findings by the Department that, in March 1968, Stevens attempted to export strategically-rated electronic equipment from the U.S. by means of falsified shipping documents and without obtaining the required validated export license from the Department. The equipment, valued at \$13,000, was ordered from two U.S. suppliers along with a number of other strategically-rated items having a collective total value of \$62,000. Stevens took possession of the initial partial shipment, valued at \$13,000, in New York, and had it delivered to a Manhattan pier for exportation to Antwerp. The proposed exportation was declared on the accompanying shipper's export declaration as personal effects and household goods valued at \$750. The Department learned of Stevens' intentions and prevented the illegal exportation. The equipment was seized and Stevens was arrested in March 1968. In criminal proceedings, Stevens was indicted and released on bond. In March 1970, he pleaded guilty to the charges and was fined \$3,000, was given a suspended jail sentence of one year, and was placed on probation for three years. This denial order continued the restrictions of a 1968 temporary denial order issued as a precautionary measure following his arrest and provided that Stevens may apply after five years to have his export privileges restored.

Geo Space France S.A., Paris, France  
Yves Manuel, Paris, France

An order effective August 14, 1970, denied the above-named firm all U.S. export privileges for three months and placed it on probation for an additional nine months. Yves Manuel, the firm's general manager, was placed on probation for nine months. This action was taken by the Department as a result of the firm's participation in the sale and delivery of a U.S.-origin oscillograph camera to another French firm, despite knowledge that the camera would be reexported from France to the People's Republic of China. Manuel, individually and on behalf of the firm, had three antedated letters prepared indicating that certain other U.S.-origin commodities, also sold by Geo Space France S.A. to the other French firm, were destined for Gabon, Africa. Investigation by the Department disclosed that the letters were misleading and the commodities actually were incorporated into equipment that the other firm delivered to the People's Republic of China.

Comp-Data GmbH, Vienna, Austria  
Johann Nitschinger, Vienna, Austria

On October 13, 1970, Comp-Data GmbH and Johann Nitschinger, its principal official, were denied all U.S. export privileges for a period of five years, continuing in effect the restrictions of a temporary denial order imposed against the respondents on April 10, 1970. The Department found that Nitschinger and his firm illegally participated in a transaction involving the exportation from the U.S. of magnetic video tapes valued at \$52,000 to a firm in Austria with knowledge that the latter firm, Austis Warenhandels-gesellschaft, and its owner, Otto Goldeband, were subject to an order denying them U.S. export privileges. The tapes were subsequently reexported to an unauthorized destination. After April 10, 1973, the respondents may apply to have the effective denial of their export privileges held in abeyance while they remain on probation for the remaining two years.

Gerald M. Hammerson, London, England  
Woodham Trading Ltd., London, England  
William R. Rombold, London, England  
Commodity Export Ltd., London, England  
Politprude Ltd., London, England  
Glovot Traders Ltd., London, England  
J.P.M. Spares Co. Ltd., London, England  
G.M.T. Friction Materials Ltd., London, England  
Associated Electronics Buying Services Ltd., London, England  
Jack Meerloo, London, England  
Frank C. Beven, London, England

An order was issued on March 2, 1971, against Woodham Trading Ltd., Commodity Export Ltd., Politprude Ltd. and the individuals who control the

firms, namely, Gerald M. Hammerson and William R. Rumbold, their agents, employees, and representatives. Under the terms of the order these parties are prohibited from participating in any transactions involving commodities or technical data exported from the United States for the duration of export controls. To prevent evasion of the order, its restrictions are made applicable to four other firms controlled by either Hammerson or Rumbold, or both. These firms are Glovet Traders Ltd., J.P.M. Spares Co. Ltd., G.M.T. Friction Materials Ltd., and Associated Electronics Buying Services Ltd. Also subject to the order are Jack Meerloo and Frank C. Beven, who are described as agents for one or more of the firms. Since 1966 Woodham, Glovet, and Commodity Export have been subject to temporary restrictions in U.S. export dealings because of suspected shipments of substantial quantities of U.S.-origin automotive and machine parts to Cuba. Hammerson and Rumbold, acting through their companies, in 1967 ordered \$120,000 worth of truck parts from a Canadian supplier, knowing the parts were of U.S. origin. Over \$75,000 worth of the parts were shipped from New York to Rotterdam and, on instructions from Hammerson and Rumbold, were reexported to Cuba in violation of the U.S. Export Control Regulations. The Department prevented shipment of the remainder of the parts. After 5 years, the respondents may apply to have the effective denial of their export privileges held in abeyance while they remain on probation.

Karl Dania, Vienna, Austria  
Express Internationale Spedition GmbH, Vienna Austria

In two separate but related orders issued on April 20, 1971, the above parties were denied U.S. export privileges for a period of 5 years because of their participation in the reexport of strategic electronic equipment, valued at \$5,300, to a proscribed destination. During 1966, Dania, who is engaged in the import-export business, obtained the equipment from a U.S. supplier on the representation that it was destined for Lebanon. Dania did not reexport the equipment to his alleged customer in Lebanon, but instead turned it over to Express, a freight forwarding firm, with instructions to forward it to an East European country that was an unauthorized destination. The Express firm had been subject to an order restricting it from handling U.S.-origin goods since March 1959 because it failed, at that time, to give information concerning its participation in a transaction involving the illegal transshipment of strategic goods that had been exported from the United States. Since Express knew that the equipment it was handling for Dania was of U.S. origin, its participation in the transaction was in violation of the 1959 denial order. Concurrent with the imposition of the 5-year denial order against Express, the indefinite denial order against the firm was terminated.

Marcus Dannoff d/b/a

Scamec International Manufacturing Sales Organization, Solna C, Sweden

By the terms of an order dated June 28, 1971, the above individual was denied all U.S. export privileges for a period of 5 years. In March 1966, Dannoff signed a certification on behalf of his firm Scamec that certain U.S.-origin strategic electronic equipment, for which U.S. reexport authorization was sought, would not be sold for use outside Sweden. The Department subsequently developed information that the equipment was sold in a country other than Sweden and that Dannoff was aware of the intended disposition of the merchandise at the time he signed the certification. One year after the effective date of the order, the respondent may apply to have the effective denial of his export privileges held in abeyance while he remains on probation for the balance of the denial period.

Cacermet S.A., Puteaux and LaFerte Bernard, France

Andre Letiers, Puteaux and Mareil-Marly, France

By the terms of an order effective July 13, 1971, the above firm and individual were denied all U.S. export privileges for a period of five years. Cacermet and Letiers participated in a transaction involving strategic U.S.-origin equipment with Yvon LeCoq, a party who had been denied U.S. export privileges, with knowledge of LeCoq's denied status. Also, Cacermet and Letiers, without authorization, reexported the equipment from France to the U.S.S.R. Further, Letiers made false statements in denying any business dealings with LeCoq when in fact he had sold LeCoq one-third of his stock holdings in Cacermet S.A. In January 1971, Cacermet went into receivership and was taken over in March 1971 by a successor firm, Societe d'Exploitation des Etablissements Cacermet S.A., also known as SEECA. The restrictions of the order against Cacermet and Letiers were made applicable to the new firm. Two years after the effective date of the order, the parties concerned may apply to have the effective denial of their export privileges held in abeyance while they remained on probation. SEECA applied for relief from the order so that it might continue in business and provide funds to the receiver of Cacermet S.A. for use in paying creditors of said firm. On September 22, 1971, an order was issued restoring the export privileges of SEECA conditionally and it was placed on probation as long as the denial order is effective against Cacermet S.A. and Letiers, or either of them.

D.K. Chan (also known as Damon K. Chan), Hong Kong, B.C.C.

Hertz Research Laboratory, Hong Kong, B.C.C.

Eckila S. Chan, Hong Kong, B.C.C.

By an order dated July 27, 1971, D.K. Chan and Hertz Research Laboratory were denied all U.S. export privileges for a period of five years because Chan, acting in the name of the firm, participated in the reexportation

of U.S.-origin strategic electronic equipment to unauthorized destinations. On February 19, 1971, an order denying export privileges for an indefinite period was issued against these parties for failing to account for their dealings in transactions involving \$45,000 worth of U.S. merchandise. Said order was superseded by an order issued on May 4, 1971, temporarily denying them export privileges until the completion of administrative compliance proceedings. The terms of latest order, as were the terms of the previous orders, are also applicable to Mrs. Eckila S. Ghan, wife of D.K. Ghan, inasmuch as she is the registered owner of the Hertz firm. Three years after the effective date of the order, the respondents may apply to have the effective denial of their export privileges held in abeyance while they remain on probation.

J.A. Goldschmidt S.A., Paris, France  
Les Etablissements Gardinier, Neully-sur-Seine, France

In two separate but related orders issued on July 28, 1971, the above parties were restricted from participating in U.S. export transactions for three years as a result of their participation in the illegal reexportation of U.S.-origin chemical fertilizer from France to Cuba in 1968. According to the terms of the orders, Goldschmidt and Gardinier, after 9 and 6 months, respectively, would have their export privileges restored conditionally and thereafter be on probation for the remainder of the denial period. Goldschmidt applied for a temporary stay of effectiveness of the order and the same was granted by an order dated August 18, 1971. On the basis of evidence submitted by Goldschmidt, it was found that the individual employed by the firm at the time of the violation in 1968, who was the principal participant on behalf of said firm in the transaction, is no longer connected with the firm or its affiliates. Further, it was determined that the impact of the original denial order against the firm was much more severe than had been contemplated. The firm's export privileges were restored conditionally by an order issued September 27, 1971, and it was placed on probation until August 5, 1974, the expiration date of the original order.

Rene Treyvaud, Lausanne, Switzerland  
Geoconsult, Lausanne, Switzerland

In an order issued December 21, 1971, the above individual and firm were denied all U.S. export privileges for a period of two years because Treyvaud, acting on behalf of the firm, in 1968 and 1970, participated in two separate exportations of seismographic equipment from the United States to Switzerland without applying for or obtaining the requisite validated export license. In each instance Treyvaud had been placed on notice that such a license was required. In addition, he caused the equipment to be incorrectly described in export documents and made misrepresentations to the effect that the merchandise was not under validated license control to

Switzerland. Four months after the effective date of the order, the respondents will have their export privileges restored conditionally and thereafter, for the remainder of the denial period, will be on probation.

Thomas H. Gifft, Anaheim, California  
T.H. Gifft Company, Anaheim, California

By an order dated December 21, 1971, the above individual and his firm were denied all U.S. export privileges for a period of one month from January 10, 1972. It was found that they participated in an unauthorized exportation in 1968. Gifft knew or had reason to know that a validated export license was required and had not been obtained. Gifft prepared and signed the pertinent Shipper's Export Declaration showing his firm as the exporter. Therein, he misdescribed the merchandise and made representations that the commodities were not under validated license control to Switzerland.

INDEFINITE DENIAL ORDERS ISSUED DURING 1969, 1970 and 1971

<u>Names and Nationalities</u>	<u>Commodity</u>	<u>Date of Order</u>
1. OLAVI LAURI SUNDSTROM et al (One Finnish individual and one firm)	Electronic Equipment	April 4, 1969
2. INTERAGRA S.A. (One French firm)	Agricultural Chemicals	May 14, 1969
3. STEINEMANN BEADON LTD. et al (One English firm and one individual)	Electronic Equipment	July 21, 1969
4. HANS BORKMANN (One West German individual)	Electronic Tubes	Oct. 21, 1969
5. MOCAMBIQUE INDUSTRIAL S.A.R.L. (One Mozambican firm)	Agricultural Machinery	Nov. 17, 1969
6. ARTHUR E. KERBEY et al (One English individual and one firm)	Electronic Equipment	Nov. 18, 1969
7. GERT HYLEN et al (One Swedish individual and one firm)	Automotive Parts	Jan. 29, 1970
8. ERWIN BRANDENSTEIN et al (Two West German individuals and three firms)	Electronic Equipment	Feb. 3, 1970
9. MIDDLE EAST MEDIA et al (One Lebanese firm and one individual)	Electronic Equipment	June 30, 1970
10. ARMAZENS DE PRODUTOR QUIMICOS DE MOCAMBIQUE, LIMITADA (One Mozambican firm)	Agricultural Chemicals	Sept. 11, 1970
11. HILMAR KRISTENSEN et al (One Danish individual and one firm)	Gear Producing Machines	Nov. 6, 1970

	<u>Names and Nationalities</u>	<u>Commodity</u>	<u>Date of Order</u>
12.	THE HERTZ RESEARCH LABORATORY et al (One Hong Kong firm and two individuals)	Electronic Equipment	Feb. 19, 1971
13.	HORST JONAS et al (Two West German individuals)	Electronic Equipment	March 17, 1971
14.	HOLLAND GE VE CORPORATION (One Dutch firm and one individual)	Recording Equipment	July 20, 1971
15.	NORMAN WEDGE LTD. et al (One English firm and two individuals)	Automotive Parts	Nov. 16, 1971

TEMPORARY DENIAL ORDERS ISSUED DURING 1969, 1970 and 1971

<u>Name and Nationality</u>	<u>Commodity</u>	<u>Effective Date of Order</u>	<u>Period of Temporary Denial</u>
1. PETROSERVICE INTERNATIONAL GmbH et al (One West German firm and one individual)	Oil Field Equipment	Jan. 10, 1969	60 days
2. Same	Same	March 10, 1969	Until completion of compliance proceedings (extension)
3. INTERAGRA S.A. (One French firm)	Fertilizer	Feb. 14, 1969	60 days
4. Same	Same	April 15, 1969	30 days (extension)
5. GERT HYLEN et al (Four Swedish firms and one individual)	Automotive Parts	Oct. 27, 1969	60 days
6. Same	Same	Dec. 23, 1969	30 days (extension)
7. HANS BORKMANN (One West German individual)	Electronic Tubes	March 24, 1970	45 days
8. Same	Same	May 5, 1970	Until completion of compliance proceedings (extension)
9. JOHANN NITSCHINGER et al (Two Austrian individuals and firms)	Video Tape	April 10, 1970	Until completion of compliance proceedings
10. LOGATRONIK GmbH (One Austrian firm)	Electronic Equipment	Dec. 14, 1970	60 days
11. THE HERTZ RESEARCH LABORATORY et al (One Hong Kong firm and two individuals)	Electronic Equipment	May 4, 1971	Until completion of compliance proceedings

	<u>Name and Nationality</u>	<u>Commodity</u>	<u>Effective Date of Order</u>	<u>Period of Temporary Denial</u>
12.	BERNARD CHOLLET (One French individual)	Electronic Equipment	May 26, 1971	60 days
13.	Same	Same	July 22, 1971	Until completion of compliance proceedings
14.	SEUROLEC S.A. (One French firm and one individual)	Electronic Equipment	August 19, 1971	90 days
15.	Same	Same	Nov. 10, 1971	Until completion of compliance proceedings
16.	LINCALOY INC. et al (Four U.S. firms and one individual; four Puerto Rican firms; one British West Indies firm)	Electronic Equipment	Dec. 23, 1971	90 days

CRIMINAL CASES (CONVICTED OR AWAITING TRIAL)

January 1, 1969 - December 31, 1971

## Sela Electronics Co., et al

One firm and one individual. On March 16, 1964, the sole proprietor of this firm was indicted for the illegal exportation of strategically-rated electronic equipment, valued at \$6,710, without the requisite validated export licenses or other authorization required by law. On January 13, 1969, he was sentenced in a U.S. District Court to four months imprisonment and fined \$2,500. He had entered a plea of guilty to one count of the eight-count indictment against him on November 8, 1968.

## James Arthur Edmiston

One individual. Edmiston was arrested on June 15, 1967, at Abilene, Texas, while attempting to export approximately 456 pounds of mercury, valued at \$2,400, without the required export license. Investigation disclosed that the mercury had been stolen from U.S. oilfields and that there was an intention to reimport the mercury with forged documents reflecting Mexican origin in order to facilitate resale in the U.S. Edmiston was tried in a U.S. District Court during the January 1969 term of the court, at which time he was found guilty. On February 25, 1969, he was sentenced to 12 months imprisonment.

## Telexport Co., Inc., et al

One firm and one individual. A 61-count indictment was handed down by a Grand Jury in the Southern District of New York on February 17, 1967, for conspiracy, false official statements, and failure to file and have authenticated Shipper's Export Declarations. The charges were made in connection with illegal exportations of cigarettes, valued at \$86,642, to the Philippines. The firm entered a plea of guilty to one count of the indictment on June 10, 1969. The other counts were dismissed. On July 29, 1969, the corporation was sentenced to pay a fine of \$100. The U.S. Attorney filed for a nolle prosequi of the indictment against the individual involved.

## Pierre M. Stevens

One foreign individual. On March 13, 1968, this subject was arrested in New York while attempting to export strategically-rated electronic equipment, valued at \$13,100, from the U.S. which he had declared as personal

effects and household goods. He was indicted on March 25, 1968, and on March 16, 1970, was sentenced to 12 months imprisonment and fined \$3,000. With payment of the fine, the term of imprisonment was suspended.

Don Oken, et al

Three individuals. On July 31, 1970, the Department referred to the Department of Justice for consideration of criminal prosecution a case involving the illegal exportation of strategically-rated electronic equipment, valued at approximately \$500,000, from the U.S. during the period March 1966 through March 1968. A fifty-seven count indictment was handed down in the U.S. District Court in September against two of the individuals (the third party is no longer within U.S. jurisdiction). One individual pleaded guilty to seven counts of the indictment and was placed on probation for a period of one year. Prosecution of the other individual has not been completed.

Diethard Prosdorf, et al

Two foreign individuals and one U.S. individual. On September 13, 1967, two foreign nationals, one resident in the U.S., were arrested for attempting to export strategically-rated electronic equipment from the U.S. without the requisite validated export license. On October 24, 1967, they were indicted together with the U.S. national. On July 17, 1970, Prosdorf was sentenced in U.S. District Court to 12 months imprisonment and a fine of \$1,000 on each of the three counts of the indictment. The sentence to confinement was suspended and Prosdorf was placed on probation for two years. On October 27, 1970, the other foreign national pleaded guilty to one count of the three-count indictment. Two counts were dismissed. No date has been set for sentencing. On the same date the U.S. national pleaded nolo contendere to one count of the indictment. Two counts were dismissed. He was placed on probation for a period of one year and fined \$1,000.

Pierre Contresty, et al

One U.S. firm and three individuals; three foreign individuals. All were indicted on charges of conspiracy, unlawful exportation, and attempted exportation of locomotive parts and diesel engine parts to Cuba. One foreign individual pleaded guilty on June 8, 1965, and was sentenced to one year in jail on each of two counts to run concurrently. He was subsequently deported after eight months in jail. The U.S. firm and two individuals pleaded guilty on June 29, 1965. The firm was fined \$10,000; one individual was fined \$1,500 and placed on probation for five years; the other individual was fined \$5,000 and sentenced to six months in jail. Two individuals, one a U.S. national and one a foreign national, have en-

tered pleas of innocent. The U.S. Attorney determined that it was not in the interest of the Government to prosecute these cases in the absence of Pierre Contresty, the prime mover. Contresty has recently died.

Luis A. Marti

One U.S. individual. On April 30, 1968, subject was indicted for violations of U.S. Export Control Regulations in connection with the attempted exportation of non-strategic merchandise valued at \$74,508 from the U.S. Trial originally set for October 20, 1970, in U.S. District Court was not held due to illness of the trial judge.

Sidney G. Simms, et al

Three individuals. On August 29 and September 2, 1969, subject and two others were arrested by U.S. Customs Agents at Houston, Texas, for conspiring to violate export control regulations by illegally exporting eight reciprocating aircraft engines to El Salvador during August 1969. On July 28, 1970, the two accomplices pleaded guilty to a criminal information filed by the Government. Each was convicted and sentenced to imprisonment for 90 days and fined \$100. Execution of the latter confinement sentences was suspended and each of the two defendants placed on probation for two years. Criminal proceedings have been completed with the sentencing of Sidney G. Simms on February 12, 1971, in United States District Court for the Southern District of Texas. On that date Simms was sentenced to imprisonment for one year and fined \$5,000. Execution of the sentence of confinement was suspended and Simms placed on probation for a period of 5 years.

IMPOSITION OF CIVIL PENALTIES

January 1, 1969 - December 31, 1971

Trans World Airlines, Inc.  
New York, N.Y.

Pursuant to a consent order issued on January 21, 1969, TWA paid civil penalties totaling \$1,350. TWA was charged with five different types of violations of the Export Control Regulations. These included allowing cargo to be loaded and exported without presentation of requisite export control documents; failure to include proper destination control statements on air waybills and commercial invoices; and shipping commodities under incorrect export license designations. TWA admitted that the violations had occurred, but claimed that the violations were of a technical nature and were due to clerical errors of its employees. The firm submitted evidence as to steps it had taken to prevent recurrence of similar violations. There was no evidence indicating that the violations compromised national security, and the consent proposal imposing the civil penalties was accepted.

Schenkers International Forwarders, Inc.  
New York, N.Y.

On April 1, 1969, civil penalties totaling \$500 were assessed against this freight forwarding firm. The charges against Schenkers included several types of violations including the use of general license authority in the exportation of merchandise that required specific validated licenses; failure to include appropriate destination control statements on commercial invoices; failure to have all export documents in conformity; and making exports prior to approval of export documents by Customs. The firm did not contest the charges and consented to the fine. There was no evidence indicating the violations compromised national security, and the firm attributed the violations to clerical errors of its employees not willfully committed.

Clifford J. Schafer  
Waldwick, N.J.

Civil penalties totaling \$1,200 were assessed against this individual on April 1, 1969, for violations of the Export Control Regulations. The violations were committed between 1965 and 1967 while Schafer was in charge of export operations for two New York firms. While employed by one firm, Schafer exported certain electronic items to a consignee in India without obtaining the necessary export license and later denied making the export-

tation. Violations by Schafer, while employed by the second firm, included signing export documents without proper authorization; failing to declare certain commodities that were exported; improperly representing that certain items offered for export did not require validated export licenses; and effecting exports before the necessary licenses were issued. At a hearing on the charges, Schafer admitted the violations, but contended that they resulted from carelessness induced by the pressure he was under from his employers to expedite the exports. There was no compromise of national security in any of the violations.

**Panalpina Airfreight, Inc.**  
Jamaica, N.Y.

On December 30, 1969, civil penalties totaling \$1,000 were assessed against this freight forwarding firm for 10 different types of violations of the Export Control Regulations in connection with exportations accomplished by the firm during 1967 and 1968. Panalpina was charged with acting as forwarding agent for exporters without duly authorized powers of attorney; presenting Shipper's Export Declarations with improper destination control statements; failing to follow required procedures to have appropriate destination control statements on all copies of commercial invoices and air waybills; failing to keep records of all export transactions; making false and misleading statements on export documents; exporting under general license authority commodities requiring a validated license; and exporting under an expired license and misrepresenting the date of expiration. The firm admitted the charges, stating that the violations resulted from clerical errors and were not willful acts of responsible officials. There was no evidence of compromise of national security in any of the violations.

**Air Express International Corp.**  
Wings & Wheels Express  
Jamaica, N.Y.

On December 30, 1969, civil penalties of \$1,800 were imposed on Air Express International Corporation (which had recently merged with Wings and Wheels Express), an international air freight forwarder at J.F. Kennedy International Airport, Jamaica, N.Y. The firm was charged with nine different categories of violations of the Export Control Regulations. It was charged that in numerous instances the firm failed to insure that appropriate destination control statements were included in export documents; failed to keep complete records of all export transactions; and acted as a forwarding agent for various exporters without duly authorized powers of attorney. The firm admitted the charges and consented to the imposition of the fine. There was no evidence of compromise of national security in any of the violations. Half the penalty was paid and the balance was held in abeyance pending the results of an examination within six months of the operations and procedures of the company to determine whether the firm was in substan-

tial compliance with the Export Control Regulations. This latter check having been favorable, the balance of the penalty was suspended.

Johnston (formerly known as Johnston Testers)  
Houston, Texas

On January 22, 1970, Johnston, a U.S. distributor of oil well drilling and gas field equipment, was fined \$8,000, in addition to being denied export privileges for a period of four months, as reported in the section treating with administrative export denial orders. The fine of \$8,000 was the maximum that could be imposed for the eight violations Johnston was charged with having committed.

Transistor AG  
Zurich, Switzerland

On June 22, 1970, civil penalties totaling \$10,000 were imposed on the above-named Swiss distributor of U.S. electronic components for numerous violations of the Export Control Regulations. In accordance with the terms of a foreign-based warehouse procedure as set forth in the Export Control Regulations, Transistor AG operates with permission to make sales of U.S. products to previously approved foreign customers without having to obtain authorization for each sale. A periodic inspection of its records disclosed it had made numerous sales in 1968 to customers who had not been approved. These customers were located primarily in Switzerland and the Federal Republic of Germany. There was no evidence that any of the transactions had adversely affected the national security. The firm did not contest the charges and consented to the imposition of the fine. Half of the penalty was paid and the balance temporarily suspended pending the results of an examination, within six months, of the firm's operations and procedures to determine its compliance with the Export Control Regulations. The latter examination disclosed that the firm had not operated in substantial compliance with the regulations between July 1 and September 21, 1970. An order was issued on December 23, 1970, requiring payment of the \$5,000 suspended fine. The payment was made on January 4, 1971.

Hugo Neu-Proler Co., Los Angeles, California  
Calbag Metals Co., Portland, Oregon  
A. Tenebaum Co., Little Rock, Arkansas

On August 20, 1970, civil penalties totaling nearly \$24,000 were imposed on the above-named firms for misuse of validated export licenses issued under the short supply provisions of the Export Control Regulations. The three companies operated independently and the cases are not related but the violations were committed in a similar manner. Under the provisions of short supply controls, in effect since 1965, the Department limited the

amount of copper that might be exported. Through arrangements with numerous other firms, the three respondents obtained licenses to which they were not entitled under the short supply quota system of licensing. Contrary to the regulations, the three companies exported more than 300 tons of copper in the form of scrap by using licenses that had been issued to other parties. The amounts of the fines, based on the amount of copper exported illegally by each of the firms, were as follows: Hugo Neu-Proler Co., \$12,288; Calbag Metals Co., \$9,051; A. Tenebaum Co., \$2,502.

Calcomp N.V.  
Amsterdam, The Netherlands

By order dated January 15, 1971, civil penalties totaling \$10,000 were imposed on Calcomp, a Dutch distributor of U.S. computer parts. The procedure under which Calcomp operates permits it to make sales of U.S. products to foreign customers previously approved by the Office of Export Control, without obtaining special authorization in each instance. In 1969 and 1970 the company made numerous sales to customers who had not been so approved. None of the sales were to parties who had been prohibited from dealing in U.S. goods and there was nothing to indicate that any of the transactions adversely affected U.S. national security interests. The company did not contest the charges and it consented to the imposition of the fine. In accordance with the terms of the order, half the penalty was paid and the balance temporarily suspended. Within 6 months, the operations and procedures of the company were examined and found satisfactory. Payment of the balance was waived.

Munzig International, Inc.  
Arthur L. Munzig, Jr.  
660 South Western Avenue  
Los Angeles, California

By order dated May 7, 1971, civil penalties totaling \$400 were imposed on Munzig International and Arthur L. Munzig, Jr., its president, for minor violations of the Export Control Regulations. The firm had exported \$1,400 worth of computer equipment to the Federal Republic of Germany prior to obtaining the necessary validated export license. The value of the equipment had been underdeclared, indicating eligibility for export under a general license. The firm had applied for a validated export license which, in due course, was issued. However, in order to meet its customer's urgent needs, the firm made the export without the license. There was no compromise of national security involved.

Miles Metal Corporation  
1 Chase Manhattan Plaza  
New York, N.Y.

An order entered on June 2, 1971, imposed civil penalties totaling \$37,000 on the above firm for exports of copper during 1969 and 1970 in violation of copper short supply regulations then in effect. The fine of \$1,000 on each of 37 violations was the maximum that could be imposed. This is the largest fine imposed since 1965 when civil penalties under the export control laws were authorized. From November 1965 until September 1970, the Department, under the short supply provisions of the Export Control Regulations, limited the amount of copper in any form that could be exported. The limitations were imposed so that sufficient supplies would be available for national defense and civilian needs. While the restrictions were in effect, Miles Metal, one of the leading primary and scrap metal dealers in the country engaged in both domestic and export trade, was authorized to export limited amounts of copper. In the period from January 1969 through August 1970, under 37 export licenses, the firm exported more than double the amount of copper authorized. The copper was exported as a constituent of metal scrap, principally used automobile radiators. In making the exports, the firm falsely underdeclared the copper content of the material. The firm admitted the violations and consented to the imposition of the fine, which it paid. In addition to the fine, the firm was placed on probation for 3 months. During this period its export privileges were not curtailed, but such privileges could have been revoked if further violations were disclosed.

E G & G International (Geodyne Division)  
Waltham, Massachusetts

By an order dated December 21, 1971, a civil penalty of \$500 was imposed on the above firm for minor violations of the export control regulations. The firm had exported or caused to be exported certain commodities of its own manufacture from the United States to France in early 1970 without the required validated export license. The firm also made misrepresentations in export documents which indicated that a validated license was not required. There was no compromise of national security in the transaction and it appeared that on proper application a license to export the commodities in question would have been issued.

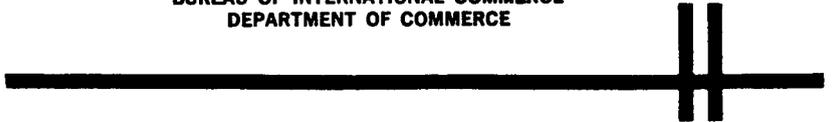


**OVER-VIEW  
OF  
THE EXPORT CONTROL PROGRAM**



**March 6, 1972**

**OFFICE OF EXPORT CONTROL  
BUREAU OF INTERNATIONAL COMMERCE  
DEPARTMENT OF COMMERCE**



## LEGISLATION

Export controls have been in operation continuously since July 1940. It was expected that they would be terminated as soon as adequate supplies of commodities became available after the end of World War II, but the development of the cold war led to passage of new legislation in 1949 providing for a continuation of controls as a means of combating the spread of Communism. The Export Control Act of 1949 continued in force for twenty years, being extended and amended from time to time. It was replaced January 1, 1970, by the Export Administration Act of 1969, which was scheduled to expire on June 30, 1971, but continues under temporary extension pending Congressional hearings. Although several other Government departments also administer some export controls under other legislation, 1/ most commercial exports are under the jurisdiction of the Department of Commerce.

## OBJECTIVES

The Export Administration Act of 1969 calls for the control of exports to the extent necessary for any of three purposes: (1) to exercise necessary vigilance over exports from the standpoint of their significance to national security, (2) to further significantly U.S. foreign policies and aid in fulfilling international responsibilities, and (3) to protect the domestic economy from excessive drain of scarce materials and reduce the serious inflationary impact of abnormal foreign demand. National security controls far outweigh those for the other two purposes. Since the end of the Korean War Period there have been only sporadic, temporary controls for short supply reasons, principally involving copper commodities and veneer-quality walnut logs. There are a few controls in effect for reasons of policy or international responsibilities; for example, the Cuban embargo in support of a resolution by the organization of American States; the virtual embargo over exports to Southern Rhodesia in support of a U. N. Security Council Resolution; control over exports to South Africa of commodities that might be used for military purposes there, also in support of a U.N. resolution; and, as part of the implementation of our nuclear test ban commitments, control over exports of commodities related to nuclear weapons and explosive devices.

1/ State Department--arms, ammunition, and implements of war; Treasury Department--gold; Maritime Administration--watercraft; Atomic Energy Commission-- certain materials, equipment, and facilities related to atomic energy; Federal Power Commission--natural gas and electrical energy; Department of Agriculture--tobacco seed and plants; Department of Justice--narcotics; Department of Interior--migratory birds and endangered fish and wildlife.

POLICIES

The Act permits denial of any application for authority to export commodities or data "...to any nation or combination of nations threatening the security of the United States, if the President determines that their export would prove detrimental to the national security of the United States, regardless of their availability from nations other than a nation or combination of nations threatening the national security of the United States..."

From the beginning of the security export control program there have been some who felt strongly that all trade with Communist countries should be embargoed as detrimental to U.S. security, while others have regarded trade in nonstrategic goods as beneficial both from an economic standpoint and in improving international relations generally. Official policy had been to permit nonstrategic trade with Eastern Europe. With passage of the Export Administration Act of 1969, which specifically encourages trade with all countries with which we have diplomatic or trading relations except where determined by the President to be against the national interest, the Department has embarked on a positive program of encouraging peaceful trade with Eastern Europe.

At the present time, a virtual embargo is maintained on exports to North Vietnam, North Korea, and Cuba. The same kind of embargo was applicable to the People's Republic of China until June 1971, when the regulations were revised to permit exports of a large number of nonstrategic items to the PRC without obtaining a license document. When, in February, 1972, the PRC was placed in the same export control status as the USSR, additional peaceful goods became eligible for export without obtaining a license document. Exports are permitted to East European countries if the commodities or data involved will not prove detrimental to the national security of the United States. Yugoslavia, although Communist, has been treated the same as free world countries since it rebelled against Soviet domination in 1948. When Poland took steps to assert a measure of independence from the Soviets (in 1957) controls over exports of commodities to that destination were eased, but they are still considerably more restrictive than those for Yugoslavia. On the other hand, effective May 1, 1971, controls over exports of commodities to Romania were relaxed to the point where comparability to Yugoslavia is very close.

Commerce also exercises licensing controls on exports and reexports to free world countries (generally excepting Canada) of both strategic or short supply commodities and a few types of technical data (such as data related to aircraft, maritime nuclear propulsion plants, neutron generators, etc.). Except where there is a short supply situation, most such controls are maintained to assure against transshipment to any destination

that would not be approved by Commerce. For the same reason, the regulations require that authorization must be obtained in order to reexport from one foreign country to another any U.S. commodities or data for which a license would be required to make a direct export from the United States to the new destination.

Since passage of the Export Administration Act, the OEC has devoted considerable attention to reviewing licensing controls in order to reduce them to the minimum level consistent with the objectives of the Act. This review, which is continuing, has resulted to date in removal of the validated license requirement from over 1700 commodities for export to various countries.

If a commodity is in short supply, export controls apply to all countries, generally excluding Canada. The quantity available for export is distributed as equitably as possible among exporters and countries of destination, usually on the basis of their proportion of total U.S. exports of the commodity during a specified past period in which there was "normal" trade.

#### INTER-AGENCY COOPERATION

The policies under which export controls are administered by Commerce are developed after consultation with other U.S. Government agencies. In addition, specific export license applications that present policy problems are also considered on an inter-agency basis before action is taken. To accomplish this consultation, interested agencies are represented on a formal committee, the Advisory Committee for Export Policy (ACEP).<sup>1/</sup> A sub-committee (Operating Committee) of the ACEP meets regularly (about once a week) to discuss problems and applications. The representatives of the agencies serving on the Operating Committee are expected to bring to these discussions whatever relevant expert knowledge is available in their departments, including intelligence information, technical information about the commodity, etc. If the Operating Committee cannot reach unanimous agreement in a situation where a policy or licensing decision is required, then the question is referred to the major committee (ACEP) and, if necessary, to the Export Administration Review Board.<sup>2/</sup>

<sup>1/</sup> Membership in ACEP includes representatives from the Department of Agriculture, Commerce, Defense, Interior, State, Transportation, and Treasury; and the Atomic Energy Commission, National Aeronautics and Space Administration, and others as necessary and appropriate. In addition, there are observers from the Office of Emergency Planning and Central Intelligence Agency.

<sup>2/</sup> Membership in the Export Administration Review Board consists of the Secretaries of Commerce (Chairman), State, and Defense.

## INTERNATIONAL COOPERATION

The United States also cooperates in an international security export control system. Fifteen countries <sup>1/</sup> work together through an informal Coordinating Committee ("CoCom") to maintain tight controls over exports to Eastern Europe and Far Eastern Communist countries of commodities mutually agreed to be strategic. The other countries in this group do not carry their controls as far as the United States does, however, and generally do not control exports of any commodities not on the agreed list.

## ORGANIZATION AND REGULATIONS

The administration of the control system is based on a licensing procedure and is carried out by a staff of approximately 185. <sup>2/</sup> The principal operating unit is the Office of Export Control in the Bureau of International Commerce. The regulations are published in the Federal Register and in a Commerce publication, Export Control Regulations. They set forth all of the licensing requirements, including a complete list of the commodities under the licensing jurisdiction of the Bureau of International Commerce and identification of the countries for which export license documents are required for each listed commodity.

## LICENSING

(1) Validated and General Licenses -- A "validated export license" is a document for which the exporter must make specific application. For every commodity over which the Department of Commerce has export control jurisdiction, the Export Control Regulations specify those destinations for which validated license must be obtained before an export shipment is made. Where such requirement is not set forth in the regulations, exports may be made without a license document under the authority of certain provisions in the regulations that are called "general licenses."

About 325 applications are received by OEC per day. <sup>3/</sup> Of these, roughly 5% are for licenses for direct exports to Eastern Europe, 90% for direct exports to other countries, 4% for authority to reexport U.S. commodities from one foreign country to another, and 1% are for extension or amendment of previously issued export or reexport authorizations.

<sup>1/</sup> Belgium, Canada, Denmark, France, Germany, Greece, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Turkey, United Kingdom, United States.

<sup>2/</sup> This figure covers OEC personnel only. In addition, 45 positions in other areas of BIC are funded from the Export Control appropriation.

<sup>3/</sup> Relaxation of controls in 1970-71 brought application receipts down from a daily average of 579 in 1969 to 425 in FY 1971.

Since the requirement for a license constitutes at least some extra burden and delay for the U.S. exporter that may be a disadvantage in a competitive situation, the OEC makes every effort to process applications as quickly as possible. About 90% of all types of applications for all countries are acted on and on their way back to the applicants within a week after receipt in OEC. At least 95% are acted on within two weeks. The remainder represent the difficult cases that require technical research or raise policy issues.

Statistics on exports under general and validated licenses are not recorded separately, but probably less than 10% of total U.S. exports go out under validated license.

(2) Applications for Non-Communist Countries. License applications for non-Communist countries are checked against available information about the commodity and the parties to the transaction to see if there is any likelihood that the shipment might be diverted to an unauthorized destination. If not, a license is issued. When there is a short supply situation, of course, it may also be necessary to apply quantitative restrictions not related to security considerations. There are also a few instances of special country policies to be considered, such as the current restrictions applicable to Southern Rhodesia and South Africa and restrictions on exports of nuclear-related commodities to certain countries.

(3) Applications for Communist Countries. Applications for Communist countries make up the bulk of the difficult cases, because most of the applications now received for these countries present problems that require detailed study before a decision can be made to approve or reject. In calendar year 1971 we processed 4,277 applications for the USSR, Eastern Europe (including Poland and Romania), Communist China, and Cuba, of which 215 were rejected and 4,062 approved. 1/

Involved in the decision to approve or reject an application for Eastern Europe are such considerations as:

- a. Is the item designed or intended for military purposes? Does it have significant military use?
- b. If the item has both military and civilian uses, will the transaction involve only the latter?
- c. Does the item contain advanced or unique technology of significance in terms of the export control program's objectives?

1/ The "Processed" figures include original applications for license, requests for reexportation authorization, and amendments for increase in total value. They do not include other types of amendments. Total of applications received in CY 1971 for these destinations was 6,279 including original applications, all amendments, reexportation requests, and cases resubmitted after having been returned to the exporter without action by the Office of Export Control.

d. Is there a shortage of the item in the area of destination that affects the military potential?

e. For strategically significant non-military items, can non-U.S. sources supply a comparable item or an adequate substitute? What is the normal use here and in the free world, and probable use in the country of destination?

(4) Rejections. If an application is rejected (regardless of destination) the exporter is notified and given the reason therefor. He has the right to ask for an administrative review of this decision or to appeal to the Appeals Board of the Department of Commerce for reconsideration.

#### ENFORCEMENT

If an application is approved, Commerce sends the exporter a license document that describes the transaction as authorized, including the commodity and the consignee. When ready to make shipment, current regulations require the exporter to present this license to Customs at the port of export. At this point, Customs takes over as an export control enforcement office. They check out the documents, make some actual inspections, and generally keep alert for any signs of exports that are contrary to Commerce's approval. They do this for all exports, whether leaving under a general license or under a license document. If anything appears wrong, Customs will take whatever action is appropriate, ranging from a mere report to Commerce up to seizure of the shipment.

Present plans are to initiate a simplified export clearance system July 1, 1972, which will eliminate a major portion of Customs involvement in export control enforcement. Exporters will no longer be required to present licenses to Customs, nor will the latter check out documents prior to shipment. While Customs will continue to be involved in actual inspections, this activity will be for the first time under Commerce supervision. There will thus be a considerably reduced reliance on Customs and an increased involvement by Commerce, not only in the Office of Export Control, but also in Census and the Department's Automatic Data Processing Facility.

If a shipment that is not properly licensed is exported, or if an approved shipment is later diverted from the approved destination to one that is not approved, or if any other violation of the regulations takes place, the Department will investigate to develop the actual facts and take appropriate action which, depending on the seriousness of the violation, may be a warning letter, administrative action denying the U.S. or foreign firm the right to participate in any further U.S. export transactions, a fine, or referral to the Department of Justice for prosecution through the courts.

Most of the Department's enforcement effort, however, is devoted to preventing violations -- thus, the requirement for and careful examination of applications for license to ship certain commodities

or data to free world countries and the use of the services of the Foreign Service to check out the probable disposition of a shipment for which an application is pending with Commerce or actual disposition of a shipment already made. Other means used to prevent violations include the requirement that importers furnish certain documents in support of license applications, giving some information about the transaction and assuring the Department that the importer understands that restrictions are imposed on the distribution of U.S. goods; the requirement that shippers enter prescribed statements on bills of lading and invoices notifying carriers, foreign forwarders, and importers of the destinations in which Commerce has authorized distribution of the shipment; press releases and other publicity on changes in the regulations; meetings of Commerce representatives with business firms, trade associations, etc., to explain controls and the reasons therefor.

#### PUBLICATIONS

Information about the export control activities of the Department of Commerce is freely available. Each day the Department publishes a list of all licenses issued the preceding day; this sells for \$37.50 a year, but it may be reviewed free of charge at the Department's main office or the field offices. At the end of each quarter, a Quarterly Report to Congress and the President is published, including narrative and statistical reports on activities during the quarter; this is available to the public for 40¢ a copy. Export control regulations are published -- the annual subscription for the full regulations with all amendments issued during the year is \$20; a summary of the regulations (not including the list of specific items that require licenses or the full detail of other sections of the regulations) may be obtained from the Superintendent of Documents for 25¢. One kind of information that is not made public, although not classified from a security standpoint, is the name of the exporter or other parties involved in a license application. This is treated as confidential business information pursuant to the Export Administration Act.

Mr. ASHLEY. Thank you, Mr. Meyer.

It is my understanding that one of the major aircraft firms in the United States has been waiting for a year and a half for approval of the sale of two large commercial jet aircraft, valued at \$26 million, to Rumania. The sale of these aircraft, of course, means a large number of jobs in an area of the country which is suffering severe unemployment. At the same time we hear repeated pronouncements of a new policy toward Rumania and of our desire to increase trade with that country. I wonder if you could comment on this and try to give me some idea of why this rather considerable delay has been necessary.

Mr. MEYER. The transaction presented to us involved not only the sale of two aircraft, although we have no applications for this on file, but also the export of certain technology and equipment that would permit the Rumanians to engage in the manufacture of certain aircraft parts. This phase of the transaction occasioned some concern with respect to the strategic overflow that would result. We have been working with the firm rather closely, and they have modified their proposal in an attempt to alleviate this concern. Our consideration of the modified proposal is in a fairly advanced state at the present time.

Mr. ASHLEY. Are other countries or producers of aircraft—Great Britain, France, perhaps others, interested in this trade? Are they competitors for this business?

Mr. MEYER. I do not know of any other foreign aircraft firm who is a competitor for this specific business. There have been instances in which other foreign aircraft manufacturing companies have engaged in transactions that bear a resemblance to this. It is not on "all fours" with it, however.

Mr. ASHLEY. We can be satisfied that these negotiations are progressing at a satisfactory pace?

Mr. MEYER. I am sure the company in question would feel that they are not proceeding at a satisfactory pace, but I think we have eliminated the initial difficulty and I would expect to move on a decision fairly rapidly.

Mr. ASHLEY. Very good.

Mr. Meyer, you recall that we explicitly mandated the Secretary of Commerce, in section 4(a) of the 1969 act to review our lists "with a view of making promptly such changes and revisions in such list as may be necessary or desirable in furtherance" of the new policy set forth in the 1969 act. In view of recent remarks by Assistant Secretary of Commerce Harold Scott indicating that there are still a number of items under unilateral control which quite likely are being controlled unnecessarily, I am wondering what is being done to expedite the review of our commodity control lists.

Mr. MEYER. At the risk of getting involved, Mr. Chairman, in a sort of a numbers game, which is rather dangerous, let me put your question into the following context.

We have on our commodity list approximately 1,100 entries. Of these 1,100, roughly 150 are under general license today to Eastern Europe. Of the remaining 950, approximately 500 are on the COCOM

list, which is to say that they are under multilateral control. There remains, then, roughly 450 entries which are under unilateral control.

Of these 450, we recently identified approximately 100 items that in our judgment are directly and significantly related to the design, production, or use of military hardware. The Atomic Energy Commission and the State Department have identified approximately 55 additional items which for reasons peculiar to the responsibilities of the two agencies they think should be continued under control.

Third, in the 450 unilaterally controlled entries there are approximately 110 entries that are what we call basket categories, which is to say a broad collection of commodities numbering in the hundreds and even thousands. We are not quite sure what in terms of specific commodities are contained in these baskets. This leaves a balance of approximately 200 commodities on the unilateral control list to which we are directing priority attention at the present time.

We have engaged for the past several months in a COCOM list review. This has taken priority over our review of the U.S. unilateral controls, because it is the type of activity which involves all 15 countries in COCOM that have been meeting regularly in Paris. But when we can squeeze in resources and activities between the various pauses in that review we look at the unilateral list and we intend to pursue the review with great vigor.

Mr. ASHLEY. Well, I am interested, frankly in what has been done since passage of the 1969 act to implement what clearly was congressional intent with respect to rationalizing the difference between our list and the COCOM list.

Mr. MEYER. Well, we have decontrolled approximately 2,000 entries. Now, included in the list are specific commodities, for example, several hundred specific chemicals.

Mr. ASHLEY. Let me interrupt to say I followed your mathematics to a point. You said there were 450 commodity categories that we control unilaterally and I believe you said about a hundred of these have been reviewed and it is felt continued control is necessary for military purposes and some 50 the State Department for foreign policy considerations feels it is necessary to continue to control.

Mr. MEYER. The State Department and the Atomic Energy Commission.

Mr. ASHLEY. The AEC.

Mr. MEYER. Yes, sir.

Mr. ASHLEY. At what pace is a review of the remaining categories taking place?

Mr. MEYER. It is hard to quantify this in precise terms. We review, for example, commodities which are identified to us as being of commercial interest because we get applications for them. At that particular point in time we proceed with the consideration of the application on the one hand and move in parallel fashion to consider whether decontrol action is appropriate. In other words, we subject—

Mr. ASHLEY. This is on a case-by-case basis?

Mr. MEYER. It can be on a case-by-case basis from that particular standpoint because it is an item of commercial interest. Where we can we have given those priority.

Mr. ASHLEY. Are you saying that your office does not unilaterally on its own initiative, in the absence of particular applications, move to decontrol various categories of items or commodities?

Mr. MEYER. No, sir; we do that too. What I am saying is that we give priority where we can to items which are of definite commercial interest. As resources permit we attack other items on the list where we think there is reason to believe they are available abroad or are of no strategic importance.

Mr. ASHLEY. Well, I am just bothered by the fact that the 1969 act spells out three essential justifications for continued controls: national security, foreign policy, and short supply. Now, you said that the Defense Establishment has reviewed with your office presumably 100 categories and found justification for continued controls and the State Department and AEC 50. There remain, however, several hundred categories which obviously cannot be put to the short supply category, and I am just wondering why there is not more rapid progress with respect to these inasmuch as there are only the three basic justifications for continued control as set forth in the act.

Mr. MEYER. We are approaching this, Mr. Chairman, from the standpoint of looking at the list as it is now constituted, reviewing the items in what we consider to be a responsible fashion, and consulting with other agencies in Washington who have an interest in export controls.

Mr. ASHLEY. Well, it is a matter of staff?

Mr. MEYER. I would concede that we have a limited staff, a finite staff.

Mr. ASHLEY. Of course.

Mr. MEYER. We consider we have as a primary responsibility, and we do give priority to, the processing of export license applications because they do represent transactions in being and we do not want to interfere with those.

I noted earlier for the past several months we have engaged in a COCOM list review which has used our technical resources almost completely.

Mr. ASHLEY. Well, I wonder about the extent to which our export activity is impeded by the continued controls of various items and categories subject, of course, to such changes as may be made upon application. Do you see what I mean?

Mr. MEYER. Yes; but let me make two observations here. One, that as a result of our review efforts to date we have cut the applications volume roughly in half. It now averages roughly 300 a day in contrast to 580 or thereabouts 2 years ago.

Second, the fact that a commodity is on our control list does not necessarily mean that the commodity is prohibited from being traded with Eastern Europe, and a large proportion of the license applications we get for trade with Eastern Europe are approved fairly rapidly. I am not trying to persuade you that there is no administrative impact. The mere fact that an exporter has to apply for a license is something of a deterrent, but we think the fairly rapid processing of applications reduces this impact on trade.

Now, over and above the use of our own resources, I should point out, we do make fairly extensive use of what the trade has to offer. We have consulted not only with individual firms but with associations in the aerospace, machine tool field, and electronics industry. The assistance rendered has varied a bit from industry to industry, but it's been useful and it has enabled us to proceed faster than we might otherwise have been able to proceed.

Mr. ASHLEY. What would you think if it was the view of the subcommittee and the full committee to include rather strong report language to the effect that we feel that there should be more expeditious review of the various categories with an eye to eliminating those categories which simply cannot be justified on the three bases set forth in the 1969 act?

Mr. MEYER. I think language of that sort, Mr. Chairman, would reaffirm what we already appreciate, that there is a good deal of interest on the part of the Congress that we speed up this review. We are under no illusion on that point.

Mr. ASHLEY. There have been a number of reports that industry feels that there is inadequate consultation between itself and the relevant Federal agencies with respect to the commodity control list and with respect to the licensing of a specific product to a specific country. It is my understanding that Assistant Secretary Scott acknowledged the validity of this view and gave instructions to identify commodity control areas that are the most troublesome from a technical strategic standpoint and that would be usefully served by a formal government-industry committee or panel. I further understand that you would establish such committees or panels in accord with Executive Order 11007, issued by President Kennedy on February 26, 1962. Please be good enough to elaborate on your plans in this connection, and describe for us briefly the nature of this Executive order. It would also be helpful if you would supply this order for the record.

Mr. MEYER. The need to consult with industry, the obligation to consult with industry, which is set forth in the act, is something we take seriously. We have throughout the years in which we have exercised export controls consulted extensively with the trade on an informal basis. We have felt that this technique is best suited to our needs because it enables us to consult freely and flexibly and in a concentrated fashion on a problem or point at hand. Thus, we are in a position to pick up the telephone and call a given firm or a given individual in a firm who can help us with a problem.

Where occasion requires we have asked representatives of a number of firms to come in and talk. I mentioned a minute ago that we have asked industry and trade associations to help us with various aspects of the commodity control list review. There is no question in my mind but that the various companies that are affected by the controls feel that we do not consult enough. I think it is even clearer in my mind that these companies feel perhaps even more keenly that we do not take their advice enough. This may be the crux of the matter. On a wide variety of points we ask them to give us technical facts, technical judgments. We consult them with respect to procedural aspects of the controls fairly freely. I think it fair to say that in terms of the technical side of matters we rely very heavily on their judgments. With respect to the procedural side, since they have to live with it, again we

rely very heavily on their judgments. Nothing is so ineffective as a procedure that the trade cannot live with.

Mr. ASHLEY. Would the Executive order in question be used as a means for bringing about this kind of consultation?

Mr. MEYER. Well, it is correct that Assistant Secretary Scott has conceded that we could do more industry consultation. It is correct that he has instructed us to do more of it. He has instructed us to examine into the problem areas and to come up with suggestions as to where we might suitably and effectively form industry advisory committees.

Mr. ASHLEY. Just a final question. What is the stage of your activities with respect to implementation?

Mr. MEYER. On that point?

Mr. ASHLEY. Yes.

Mr. MEYER. We are consulting industry more extensively on both the COCOM review and on our unilateral review and on over entire range of export control activity. With respect to formalizing, we have tentatively identified areas where we think formal industry advisory committees might be useful. I do not believe we will be in a good position to identify these areas definitely until we get a clearer idea of where the COCOM review is going to come out. I think there would be nothing more disadvantageous or detrimental to the industry advisory system than to establish a committee where we didn't need one and not to use the committee. Now, the COCOM review, which I expect will come to a conclusion in a matter of several weeks, should enable us to judge better just where we will need these committees.

Mr. ASHLEY. And to formalize the arrangements as suggested by Mr. Scott, is that correct?

Mr. MEYER. That is correct. If we do formalize we have an Executive order which in effect gives us ground rules.

Mr. ASHLEY. That is the Executive order I referred to in my question?

Mr. MEYER. Yes. As you requested earlier, we will provide this order for the record.

(In response to the request of Chairman Ashley, the text of Executive Order No. 11007 was submitted for the record by Mr. Meyer.)

EXECUTIVE ORDER 11007—PRESCRIBING REGULATIONS FOR THE FORMATION AND USE OF ADVISORY COMMITTEES

Whereas the departments and agencies of the Government frequently make use of advisory committees; and

Whereas the information, advice and recommendations obtained through advisory committees are beneficial to the operations of the Government; and

Whereas it is desirable to impose uniform standards for the departments and agencies of the Government to follow in forming and using advisory committees in order that such committees shall function at all times in consonance with the antitrust and conflict of interest laws:

Now, therefore, by virtue of the authority vested in me by the Constitution and statutes, and as President of the United States, it is hereby ordered as follows:

SECTION 1. The regulations prescribed in this order for the formation and use of advisory committees shall govern the departments and agencies of the Government to the extent not inconsistent with specific law.

SEC. 2. As used herein,

(a) The term "advisory committee" means any committee, board, commission, council, conference, panel, task force, or other similar group, or any subcommittee or other subgroup thereof, that is formed by a department or agency of the Government in the interest of obtaining advice or recommendations, or for any other purpose, and that is not composed wholly of officers or employees of the

Government. The term also includes any committee, board, commission, council, conference, panel, task force, or other similar group, or any subcommittee or other subgroup thereof, that is not formed by a department or agency, but only during any period when it is being utilized by a department or agency in the same manner as a Government-formed advisory committee.

(b) The term "industry advisory committee" means an advisory committee composed predominantly of members or representatives of a single industry or group of related industries, or of any subdivision of a single industry made on a geographic, service or product basis.

Sec. 3. No advisory committee shall be formed or utilized by any department or agency unless

(a) specifically authorized by law or

(b) specifically determined as a matter of formal record by the head of the department or agency to be in the public interest in connection with the performance of duties imposed on that department or agency by law.

Sec. 4. Unless specifically authorized by law to the contrary, no committee shall be utilized for functions not solely advisory, and determinations of action to be taken with respect to matters upon which an advisory committee advises or recommends shall be made solely by officers or employees of the Government.

Sec. 5. Each industry committee shall be reasonably representative of the group of industries, the single industry, or the geographical, service, or product segment thereof to which it relates, taking into account the size and function of business enterprises in the industry or industries, and their location, affiliation, and competitive status, among other factors. Selection of industry members shall, unless otherwise provided by statute, be limited to individuals actively engaged in operations in the particular industry, industries, or segments concerned, except where the department or agency head deems such limitations would interfere with effective committee operation.

Sec. 6. The meetings of an advisory committee formed or used by a department or agency shall be subject to the following rules:

(a) No meeting shall be held except at the call of, or with the advance approval of, a full-time salaried officer or employee of the department or agency, and with an agenda formulated or approved by such officer or employee.

(b) All meetings shall be under the chairmanship, or conducted in the presence of, a full-time salaried officer or employee of the Government who shall have the authority and be required to adjourn any meeting whenever he considers adjournment to be in the public interest.

(c) For advisory committees other than industry advisory committees, minutes of each meeting shall be kept which shall, as a minimum, contain a record of persons present, a description of matters discussed and conclusions reached, and copies of all reports received, issued, or approved by the committee. The accuracy of all minutes shall be certified to by a full-time salaried officer or employee of the Government present during the proceedings recorded.

(d) A verbatim transcript shall be kept of all proceedings at each meeting of an industry advisory committee, including the names of all persons present, their affiliation, and the capacity in which they attend: *Provided*, That where the head of a department or agency formally determines that a verbatim transcript would interfere with the proper functioning of such a committee or would be impracticable, and that waiver of the requirement of a verbatim transcript is in the public interest, he may authorize in lieu thereof the keeping of minutes which shall, as a minimum, contain a record of persons present, a description of matters discussed and conclusions reached, and copies of all reports received, issued, or approved by the committee. The accuracy of all minutes shall be certified to by a full-time salaried officer or employee of the Government present during the proceedings recorded.

(e) Industry advisory committees shall not be permitted to receive, compile, or discuss data or reports showing the current or projected commercial operations of identified business enterprises.

(f) In the case of advisory committees other than industry advisory committees, the department or agency head may waive compliance with any requirement contained in subsection (a), (b) or (c) of this section when he formally determines that compliance therewith would interfere with the proper functioning of such a committee or would be impracticable, that adequate provisions are otherwise made to insure that committee operation is subject to Government control and purpose, and that waiver of the requirement is in the public interest.

SEC. 7. The head of each department or agency sponsoring an advisory committee may prescribe additional regulations, consistent with the provisions and purposes of this order, to govern the formation or use of such committees, or the appointment of members thereof.

SEC. 8. An advisory committee whose duration is not otherwise fixed by law shall terminate not later than two years from the date of its formation unless the head of the department or agency by which it is utilized determines in writing not more than sixty days prior to the expiration of such two-year period that its continue existence is in the public interest. A like determination by the department or agency head shall be required not more than sixty days prior to the end of each subsequent two-year period to continue the existence of such committee thereafter. For the purpose of this section, the date of formation of an advisory committee in existence on the date of publication of this order shall be deemed to be July 1, 1960, or the actual date of its formation, whichever is later.

SEC. 9. The requirements of this order shall not apply:

(a) to any advisory committee for which Congress by statute has specified the purpose, composition and conduct unless and to the extent such statute authorizes the President to prescribe regulations for the formation or use of such committee;

(b) to any advisory committee composed wholly of representatives of State or local agencies or charitable, religious, educational, civic, social welfare, or other similar nonprofit organizations;

(c) to any local, regional, or national committee whose sole function is the dissemination of information for public agencies, or to any local civic committee whose primary function is that of rendering a public service other than giving advice or making recommendations to the Government.

SEC. 10. (a) Each department and agency utilizing advisory committees shall publish in its annual report, or otherwise publish annually, a list of such committees, including the names and affiliations of their members, a description of the function of each committee and a statement of the dates of its meetings: *Provided*, that the head of the department or agency concerned may waive this requirement where he determines that such annual publication would be unduly costly or impracticable, but shall make such information available, upon request, to the Congress, the President, or the Attorney General.

(b) A copy of each such report shall be furnished to the Attorney General, and all records and files of advisory committees, including agenda, transcripts or notes of meetings, studies, analyses, reports or other data compilations or working papers, made available to or prepared by or for any such advisory committee, shall be made available, upon request by the Attorney General, to his duly authorized representatives, subject to such security restrictions as may be properly imposed on the materials involved.

SEC. 11. This order supersedes the directive of February 2, 1959, entitled "Standards and Procedures for the Utilization of Public Advisory Committees by Government Departments and Agencies," and all provisions of prior Executive orders to the extent they are inconsistent herewith.

JOHN F. KENNEDY.

THE WHITE HOUSE, *February 26, 1962.*

Mr. ASHLEY. Mr. Rees.

Mr. REES. Thank you. On the Romanian transaction, you held up their applications for three commercial aircraft. Now, what did they want to manufacture in Romania that was tied into the commercial aircraft?

Mr. MEYER. I don't have the specifics at hand, Mr. Rees.

Mr. REES. Why would this be a security item if they could buy the airplane, they have got the parts of the airplane all there, don't they?

Mr. MEYER. The concern was that, as part of the transaction, they would be given advanced machine tools as well as technical assistance and know-how, to manufacture these parts. We were concerned that this technical capability could be utilized in the production of military aircraft parts as well as strictly commercial aircraft parts.

Mr. REES. Neither of us is talking specifics. If its not a security matter could you explain the transactions in more detail for the record as to exactly what types of parts they wanted to manufacture and what type of higher technology they would have to use for that manufacturing.

Mr. MEYER. I will try to do this, but we are under certain statutory inhibitions in discussing a specific company's transaction.

Mr. REES. I am not interested in the company, I am interested in the item that would be manufactured that would go into an airplane.

Mr. MEYER. We will give you such details as we can on this.

Mr. REES. Thank you.

(In response to the request of Mr. Rees, the following information was submitted for the record by Mr. Meyer:)

Section 7(c) of the Export Administration Act provides that information obtained under the Act which is deemed confidential or with reference to which a request for confidential treatment is made by the person furnishing such information may not be disclosed or published unless the Secretary of Commerce determines that the withholding thereof is contrary to the national interest. In other words, it is not a question of our being required to disclose such information, but rather of our being required not to disclose it, unless the Secretary expressly determines that it is in the national interest to do so. We have contacted the company involved and inquired whether they would object to public disclosure of the details of this transaction. The company has advised us that the transaction is still in the negotiating stages and that disclosure of any details therein would provide its competitors with an unfair advantage which could result in their losing this business opportunity. Accordingly, they have requested that we do not disclose this information.

Mr. REES. What items do you have on your list that COCOM does not have on their list.

Mr. MEYER. As has been observed here, there are approximately 450 entries currently on our control list. I can supply for the record the information if this would suffice.

Mr. REES. I wish you would.

(In response to the request of Mr. Rees, the following information was submitted for the record by Mr. Meyer:)

The entries identified by an asterisk (\*) to the left of the Export Control Commodity Number on the following Commodity Control List constitute the entries in question that are not under COCOM control.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	

**SECTION 0—FOOD AND LIVE ANIMALS<sup>1</sup>**

- \* 0(1)F Inbred cereal grain seed.....<sup>2</sup> || 208 || SYZ || — || — || — ||
- 0(2)C Commodities not listed above, classified .....<sup>2</sup> || 208 || SZ || — || — || — ||  
under Schedule B Nos. 001.1010 through 099.1070.  
(Also specify 7-digit Schedule B No.)<sup>3</sup>
- 0(3)M Food donated for relief or charity by indi- || Export controls applicable to each commodity under this  
viduals or private agencies, n.e.c. || classification are those which apply to the commodity when  
|| exported commercially under its individual Export Control  
|| Commodity number.

**SECTION 1—BEVERAGES AND TOBACCO**

- 1(1)G Beverages, tobacco, and tobacco manufac- || .....<sup>2</sup> || 208 || SZ || — || — || — ||  
tures.

**SECTION 2—CRUDE MATERIALS, INEDIBLE, EXCEPT FUELS<sup>1</sup>**

- 21(1)G Hides, skins, and fur skins, undressed ... || .....<sup>2</sup> || 208 || SZ || — || — || — ||
- 22(1)G Oil seeds, oil nuts, oil kernels, and flour || .....<sup>2</sup> || 208 || SZ || — || — || — ||  
and meal thereof.

**CRUDE RUBBER, INCLUDING SYNTHETIC AND RECLAIMED RUBBER**

- 23(1)A Synthetic rubber, as follows: (a) alkyl || Lb. || 221 || QSTVWXYZ || 500 || 100 || 0 || P-1  
polysulfide liquid polymers having a molecular  
weight of 1200 or less and a viscosity of 2000 cps or less; (b) fluorinated silicone rubber; (c) fluorinated elas-  
tomers containing 10 percent or more of combined fluorine; (d) carboxyl terminated polybutadiene, polyiso-  
prene and polyisobutylene; (e) hydroxyl terminated polybutadiene; (f) thiol terminated polybutadiene; (g)  
cyclized 1, 2-polybutadiene; (h) moldable copolymers of butadiene and acrylic acid; and (i) moldable terpoly-  
mers of butadiene, acrylonitrile, and acrylic acid or any of the homologues of acrylic acid. (Specify by name.)
- \* 23(2)D Synthetic rubber, as follows: (a) ethylene- || Lb. || 228 || SWXYZ || — || — || 100 ||  
propylene terpolymer, (b) cis-types (for example,  
cis-polyisoprene and cis-polybutadiene), (c) copolymers of methyl vinylpyridine and butadiene, (d) other sili-  
cone rubber, and (e) other alkyl polysulfide rubbers, *except liquid polymers.*
- \* 23(3)E Other synthetic rubber and rubber substi- || Lb.<sup>4</sup> || 228 || SXYZ || — || — || 100 ||  
tutes, n.e.c., *except neoprene, styrene-butadiene  
rubber (SBR), and butyl rubber.*
- \* 23(4)F Reclaimed rubber and waste and scrap of || Lb. || 228 || SYZ || — || — || — ||  
unhardened rubber, natural and synthetic, *except  
reclaimed rubber and waste and scrap of styrene-  
butadiene rubber (SBR), and butyl rubber.*
- 23(5)G Commodities not listed above, classified || Lb. || 228 || SZ || — || — || — ||  
under Schedule B Nos. 231.1010 through 231.4000.  
(Also specify 7-digit Schedule B No.)
- 24(1)G Commodities classified under Schedule B || .....<sup>2</sup> || 208 || SZ || — || — || — ||  
Nos. 241.1000 through 244.0000.

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> See § 370.10(i) for U.S. endangered native fish and wildlife and migratory birds, or any part, product, egg, or offspring thereof, or the dead body or parts thereof whether or not included in a manufactured product, which require export authorization from the U.S. Department of the Interior.  
<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.  
<sup>4</sup> Report latex (liquid) in "content pound."

CCL-3

25(1)—28(6)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Schedule Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
25(1)G <sup>1</sup> Commodities classified under Schedule B   S. ton   208			SZ <sup>2</sup>	—	—	—	
Nos. 251.1000 through 251.8220.							
<b>TEXTILE FIBERS, NOT MANUFACTURED INTO YARN, THREAD, OR FABRICS, AND THEIR WASTE</b>							
26(1)A Man-made staple, tow, fibers, and filaments   Lb.   221   QSTVWXYZ   500   500   0							
made of polyimides, polybenzimidazoles, polyimida- zopyrrolones, aromatic polyamides, and polyparaxylylenes. (Specify by name.)							
26(2)A Staple, not carded or combed, and continu-   Lb.   241   QSTVWXYZ   500   500   0   P-3							
ous filament tow, wholly made of fluorocarbon poly- mers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)							
* 26(3)D Staple, not carded or combed, and continu-   Lb.   248   SWXYZ   —   —   100							
ous filament tow, wholly made of other fluorocar- bon polymers or copolymers. (Specify by type.)							
* 26(4)B Used, obsolete, and reject materials bear-   Lb.   202   QSTVWXYZ   500   0   0							
ing the design of any version of the flag of the United States of America.							
26(5)G <sup>1</sup> Commodities not listed above, classified   ..... <sup>2</sup>   208			SZ <sup>2</sup>	—	—	—	
under Schedule B Nos. 261.0000 through 267.0040. (Also specify 7-digit Schedule B No.)							
* 27(1)B Magnesium oxide, purity 97 percent or   Lb.   242   QSTVWXYZ   500   500   0							
higher, except precipitated.							
* 27(2)B Lithium ores and concentrates, for exam-   Lb.   242   QSTVWXYZ   500   25   0   P-7							
ple, amblygonite, lepidolite and petalite).							
* 27(3)F Nonmetallic minerals, as follows: celestite;   ..... <sup>2</sup>   248			SYZ	—	—	—	
gallium sesquioxide; lutetium oxide; strontium sulfate; cerium ores (for example, bastnasite and cerite; and other rare earth (for example, europium, gado- linum, lanthanum, praseodymium, and samarium).							
27(4)G <sup>1</sup> Commodities not listed above, classified   ..... <sup>2</sup>   248			SZ <sup>2</sup>	—	—	—	
under Schedule B Nos. 271.1000 through 276.9800. (Also specify 7-digit Schedule B No.)							
<b>METALLIFEROUS ORES AND METAL SCRAP<sup>3</sup></b>							
28(1)A Iron and steel scrap of magnetic materials   S. ton   261   QSTVWXYZ   500   100   0							
as defined in § 399.2, Interpretation 6(a).							
* 28(2)B Iron and steel scrap, including scrap melted   S. ton   262   QSTVWXYZ   500   100   0							
into crude forms, special types Class 1. <sup>4</sup>							
* 28(3)J Iron and steel scrap, including scrap melt-   S. ton   268   QSWXYZ   —   —   100							
ed into crude forms, special types Class 2. <sup>4</sup>							
* 28(4)J Tantalum ores and concentrates. <sup>5</sup>   Lb.   268   QSWXYZ   —   —   100							
* 28(5)D Molybdenum ores and concentrates. <sup>5</sup>   Cnt. lb.   268   SWXYZ   —   —   100							
* 28(6)B Zirconium ores and concentrates   Lb.   262   QSTVWXYZ   500   500   0							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.<sup>2</sup> See § 399.2, Interpretation 25, for commodities requiring a validated license for export to East Germany.<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.<sup>4</sup> See § 399.10(a) for ores and concentrates which require export authorization from the U.S. Atomic Energy Commission.<sup>5</sup> Specify recognized designation (AISI, SAE, NE number, etc.), or percentage of each alloying element.<sup>6</sup> For definitions of "special types" of alloy steel, see § 399.2, Interpretations 8 and 9.

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Number	Validated Licenses Required for Country Groups Shown Below	* CIV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 28(7)J Beryllium ores and concentrates	Lb.	268	QSWXYZ	—	—	100	
* 28(9)B Rhenium concentrates (salts)	Lb.	262	QSTVWXYZ	100	100	0	
* 28(9)F Other ores and concentrates of nonferrous base metals, n.e.c., except antimony, bauxite and aluminum, chromium, cobalt, copper, lead, manganese, mercury (quicksilver), nickel, platinum and platinum group, niobium, silver, tin, titanium, tungsten, vanadium, and zinc. <sup>1</sup>	Lb.	268	SYZ	—	—	—	
* 28(10)J Other nickel or nickel alloy waste and scrap, including scrap melted into crude forms, as defined in § 899.2, Interpretation 6(b) or 33. (Specify nickel content in pounds and complete metal analysis). <sup>1</sup>	Lb.	268	QSWXYZ	—	—	100	
28(11)A Magnesium alloy scrap containing 0.4 percent or more rare earth metals (cerium misch metal). <sup>2</sup>	Lb.	261	QSTVWXYZ	500	100	0	
* 28(12)J Tantalum bearing slag	Lb.	268	QSWXYZ	—	—	100	
28(13)C' Commodities not listed above, classified under Schedule B Nos. 281.5000 through 285.0240. (Also specify 7-digit Schedule B No.). <sup>3</sup>	Lb.	268	SZ <sup>4</sup>	—	—	—	
* 29(1)F Inbred forage sorghum seed	Lb.	208	SYZ	—	—	—	
29(2)C' Commodities not listed above, classified under Schedule B Nos. 291.0010 through 292.9800. (Also specify 7-digit Schedule B No.). <sup>4</sup>	Lb.	208	SZ <sup>4</sup>	—	—	—	

## SECTION 3—MINERAL FUELS, LUBRICANTS, AND RELATED MATERIALS

\* 3(1)F Gilsocarbon coke or other coke derived from gilsonite. S. ton 258 SYZ — — —

## PETROLEUM AND PETROLEUM PRODUCTS

3(2)A Liquid jet fuels having a gross calorific value of not less than 28,400 BTU per pound. Bbl. 258 QSTVWXYZ 500 25 0 P-4

\* 3(3)D Gasoline blending agents, hydrocarbon compounds only, n.e.c., except cumene, diisobutylene, saturated and unsaturated straight-chain hydrocarbons, and triisobutylene; and other jet fuels, except kerosene. Bbl. 251 SWXYZ — — 100

3(4)A Lubricants, including petroleum based hydraulic fluids, which are or which contain as the principal ingredient petroleum (mineral) oils, and have all of the following characteristics: (a) a pour point of minus 80° F. (minus 84° C.) or lower, (b) a viscosity index (VI) of 75 or greater, and (c) are thermally stable at plus 700° F. (plus 371° C.).<sup>5</sup> Bbl. 251 QSTVWXYZ 500 25 0 P-4

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See § 870.10(e) for ores and concentrates which require export authorization from the U. S. Atomic Energy Commission.

<sup>3</sup> See § 899.2, Interpretations 10 and 12.

<sup>4</sup> See § 899.2, Interpretation 25, for commodities requiring a validated license for export to East Germany.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> Tobacco seed and tobacco plants require export authorization from the U.S. Department of Agriculture. See § 870.10(h).

<sup>7</sup> See § 871.10(8) for commodities which require export authorization from the U.S. Department of Justice.

<sup>8</sup> See § 870.10(i) for U.S. endangered native fish and wildlife and migratory birds, or any part, product, egg, or offspring thereof, or the dead body or parts thereof whether or not included in a manufactured product, which require export authorization from the U.S. Department of the Interior.

<sup>9</sup> Barrel of 42 gallons.

<sup>10</sup> Thermal stability is determined as follows: twenty c.c. of the fluid under test shall be placed in a 46 c.c. stainless steel chamber containing one each of 3/8 inch diameter balls of M-10 tool steel, S2100 steel, and naval bronze. The chamber shall be purged with nitrogen, sealed at atmospheric pressure, and the temperature raised to 371° C. plus or minus 4° C. and maintained at this temperature for six hours. The specimen will be considered thermally stable if at the completion of the above procedure all of the following conditions are met: (a) the weight loss of each ball is less than 0.1 milligram per square centimeter of surface, (b) the change in original viscosity as determined at 88° C. is less than 25 percent, and (c) the total acid or base number is less than .40.

CCL-4

3(5)-4(1)

Commodity Control List-399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Quantity	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Restrictions
				T	V	X	
3(5)A Lubricants, synthetic, which contain as the principal ingredient: (a) esters of saturated aliphatic monohydric alcohols containing more than six carbon atoms with adipic or azelaic or sebacic acids, (b) esters of trimethylol propane or trimethylol ethane or pentaerythritol with saturated monobasic acids containing more than 6 carbon atoms, (c) fluoro-alcohol esters, (d) perfluoroalkyl ethers, or (e) polyphenyl ethers containing more than three phenyl groups.	Bbl. <sup>1,2</sup>	251	QSTVWXYZ	500	25	0	P-4
* 3(6)B Synthetic lubricating oils and greases which are, or which contain as their principal ingredient, monomeric and polymeric forms of perfluorotriazines, perfluoroaromatic ethers and esters, and perfluoroaliphatic ethers and esters.	Bbl.	252	QSTVWXYZ	500	25	0	P-4
3(7)A Lubricants wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)	Bbl. <sup>1,2</sup>	251	QSTVWXYZ	500	250	0	P-13
3(8)A Cutting fluids and compounds containing more than 50 percent trichlorotrifluoroethane (R-113) or dichlorotetrafluoroethane (R-114).	Bbl. <sup>1</sup>	221	QSTVWXYZ	500	500	0	P-14
3(9)A Silicone fluids and greases, as follows: (a) fluorinated silicone fluids; (b) chlorinated silicone fluids; and (c) silicone lubricating grease capable of operating at temperatures of 356° F. (180° C.) or higher and having an ASTM drop point of 428° F. (220° C.) or higher.	Bbl. <sup>1,2</sup>	251	QSTVWXYZ	500	250	0	P-14
* 3(10)B Other halogenated silicone fluids	Bbl. <sup>1</sup>	252	QSTVWXYZ	500	250	0	P-14
* 3(11)E Other synthetic aviation engine lubricating oil, except ester type.	Bbl. <sup>1</sup>	258	XYXZ	—	—	100	
* 3(12)B Molybdenum lubricants containing 80 percent or more molybdenum disulphide.	Lb.	252	QSTVWXYZ	1,000	1,000	0	P-13
* 3(13)D Other lubricating oils and greases, n.e.c., except lube oil in containers of 8 ounces or less; and cylinder bright stock, including bright stock and industrial oils which are predominantly bright stock.	Bbl. <sup>1,2</sup>	258	SWXYZ	—	—	100	
* 3(14)D Hydraulic or automatic transmission fluids, petroleum based, having all of the following characteristics: (a) kinematic viscosity of 4.6 centistokes or greater at 210° F. (98.8° C.), (b) pour point of minus 30° F. (minus 34° C.) or lower, and (c) viscosity index (VI) of 130 or higher.	Bbl. <sup>1</sup>	258	SWXYZ	—	—	100	
3(15)C' Commodities not listed above, classified under Schedule B Nos. 321.4010 through 341.2000. (Also specify 7-digit Schedule B No.) <sup>4</sup>		258	SZ'	—	—	—	

SECTION 4—ANIMAL AND VEGETABLE OILS, FATS, AND WAXES<sup>5</sup>

4(1)G Commodities classified under Schedule B || Lb. || 248 || SZ || — || — || — ||  
Nos. 411.1010 through 431.5000.<sup>6</sup>

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Barrel of 42 gallons.

<sup>3</sup> Report grease in "pound."

<sup>4</sup> See § 399.2, Interpretation 22, for commodities requiring a validated license for export to East Germany.

<sup>5</sup> Pipeline gas requires export authorization from the U.S. Federal Power Commission. See § 370.10(g).

<sup>6</sup> Report unit of quantity for each commodity in accordance with Schedule B requirement.

<sup>7</sup> See § 370.10(i) for commodities which require export authorization from the U.S. Department of the Interior.

June 1, 1972

Export Control Regulations

Commodity Control List—399.1

512(1)—512(15)

OCL-5

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	* CIV & Value Limits for Shipments to Country Groups			* Special Restrictions List
				T	V	X	

## SECTION 5—CHEMICALS

CHEMICAL ELEMENTS AND COMPOUNDS<sup>1</sup>

* 512(1)B 2-Di-cyclohexyl carbodiimide; and di-o- tolyl carbodiimide.	Lb.	222	QSTVWXYZ	500	0	0	
* 512(2)B Fluoro-alcohol esters; and perfluoroalkyl ethers.	Lb.	222	QSTVWXYZ	500	100	0	P-14
* 512(3)B Perfluorotriazines, perfluoroaromatic ethers and esters, and perfluoroaliphatic ethers and esters.	Lb.	222	QSTVWXYZ	500	25	0	P-14
* 512(4)A / P-nitro-methylaniline (N-methyl-p- nitro-aniline).	Lb.	221	QSTVWXYZ	500	0	0	P-14
* 512(5)B Polyphenyl ethers containing more than three phenyl groups.	Lb.	222	QSTVWXYZ	500	250	0	
* 512(6)B Methyl benzylate; ortho chloro benzalde- hyde; piperidine carboxyl acid; 8-quinuclidinone; and 8-quinuclidinol.	Lb.	222	QSTVWXYZ	500	25	0	
* 512(7)B Chlorendic acid; and chlorendic anhy- dride.	Lb.	222	QSTVWXYZ	500	500	0	
* 512(8)J Diazodinitrophenol	Lb.	228	QSWXYZ	—	—	100	
* 512(9)D Coal tar and other cyclic chemical inter- mediates, <i>the following only</i> : dinitrotoluene solids * and oils; diphenylamine; N-methylaniline (monomethylaniline); and pyromellitic acid and dianhydrides.	Lb.	228	SWXYZ	—	—	100	
512(10)B Beta-diethylaminoethyl diphenylpropyl- acetate hydrochloride.	Lb.	222	QSTVWXYZ	500	25	0	
512(11)M Synthetic organic medicinal chemicals, in bulk, for which industrial grades are included under other Export Control Commodity Numbers.	Lb.						Export controls applicable to these commodities are those which apply to the industrial grades.
* 512(12)B Esters of trimethylol propane or tri- methylol ethane or pentaerythritol with satu- rated monobasic acids containing more than six carbon atoms, including but not limited to trimethylolpropane tripelargonate.	Lb.	222	QSTVWXYZ	500	100	0	P-14
* 512(13)J Esters of (a) saturated aliphatic mono- hydric alcohols containing more than six car- bon atoms with adipic or azelaic or sebacic acids, including but not limited to nonyl sebacates, nonyl azelates, nonyl adipates, octyl sebacates, octyl azelates, and octyl adipates, or (b) dibasic saturated aliphatic acids combined with polyglycols, where one or both of the two constituents contain six or more carbon atoms; and other esters of saturated monohydric alcohols with dibasic saturated aliphatic acids where both of the two constituents contain six or more carbon atoms.	Lb.	228	QSWXYZ	—	—	100	
* 512(14)B Butyl-2, 4-dichlorophenoxyacetate (LNA); and 2, 4, 5-trichlorophenoxyacetate (LNB).	Lb.	222	QSTVWXYZ	500	500	0	
* 512(15)D Organic phosphate pesticides; and pesti- cides and synthetic organic agricultural chemicals, as follows: other chlorophenoxyacetic and chlorofluorophenoxyacetic acids and their salts and esters; alkyl aryl	Lb.	228	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Dinitronaphthalene, picric acid, and tetranitronaphthalene, among other commodities, require authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

CCL-6

512(15)—512(27)

Commodity Control List—\$99.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated Licenses Required for Country Groups Shown Below	* CIV & Value Limits for Shipments to Country Groups			* Special Licenses List
				T	V	X	
carbamates (including isopropyl N-phenylcarbamate isopropyl N- (3-chlorophenyl) -carbamate); bromo-alkyl pyrimidines; and amino-chloro picolinic acid and its salts and esters. <sup>1</sup>							
512(16)A Organic boranes (borines) containing 5 [ Lb. ]		[ 221 ]	QSTVWXYZ	500	100	0	P-13
percent or more boron.							
512(17)A Cyclic chemical products, as follows: [ Lb. ]		[ 221 ]	QSTVWXYZ	500	100	0	P-14
(a) ethyl centralite (diethyldiphenylurea); (b) methyl centralite; (c) NN-diphenylurea (unsymmetrical diphenylurea); (d) methyl-NN-diphenylurea (methyl unsymmetrical diphenylurea); (e) ethyl-NN-diphenylurea (ethyl unsymmetrical diphenylurea); (f) ethyl phenyl urethane; (g) diphenyl urethane; (h) diortho tolyl-urethane; and (i) 2-nitrodiphenylamine (N-phenyl-2-nitroaniline; nitrophenylamine).							
*512(18)D Diorgano siloxanes, cyclic, capable of being polymerized to rubbery products. [ Lb. ]		[ 222 ]	SWXYZ	—	—	100	
512(19)A Organic chemicals, as follows: (a) guanidine nitrate; (b) 2-nitrazo-1, 5 pentane diisocyanate [di (2-isocyno ethyl) nitramine]; (c) bis (2, 2' dinitropropyl) formal and acetal; and (d) 2, 2' dinitropropanol. [ Lb. ]		[ 221 ]	QSTVWXYZ	500	0	0	
512(20)A Organic chemicals, as follows: (a) copolymers of bromotrifluoroethylene and chlorotrifluoroethylene; (b) dibromotetrafluoroethane (R-114B2); and (c) polybromotrifluoroethylene. [ Lb. ]		[ 221 ]	QSTVWXYZ	500	500	0	P-14
512(21)A Trichlorotrifluoroethane (R-113); dichlorotetrafluoroethane (R-114); and solvents or mixtures containing more than 50 percent of either. (Specify by name.) [ Lb. ]		[ 221 ]	QSTVWXYZ	500	500	0	P-14
512(22)A Organic intermediates containing 10 percent or more of combined fluorine, used in the manufacture of fluorinated elastomeric products (for example, chloropentafluorobutadiene, hexafluoropropylene, and vinylidene fluoride). [ Lb. ]		[ 221 ]	QSTVWXYZ	500	500	0	P-14
* 512(23)B Trichloroethylene specially purified and/or neutrally stabilized for precision type metal cleaning or degreasing. [ Lb. ]		[ 222 ]	QSTVWXYZ	500	0	0	
* 512(24)B Organic chemicals, as follows: 2-cyanoacetamide; diethylaminoethanol; diethyl-methyl phosphonite; di-isopropyl amino ethyl chloride hydrochloride; di-isopropyl carbodiimide; 2-di-isopropyl amino ethanol; dimethyl hydrogen phosphite; dimethylaminopropylchloride hydrochloride; 10, 11-dihydro-N, N-dimethyl-5H-dibenz (a, d) cycloheptene delta 5, gamma-propylamine; 2-chloro-10-(3-dimethylaminopropyl)-phenothiazine; 4-(3-(2-(trifluoromethyl)phenothiazine-10-yl)propyl)-1-piperazine ethanol; 5-(3-dimethylaminopropyl)-10, 11-dihydro-5H-dibenz (b, f) azepine; 10-(3-dimethylaminopropyl)-2-trifluoromethyl-phenothiazine; 5-(3-dimethylamino)-2-methylpropyl)-10, 11-dihydro-5H-dibenz (b, f) azepine; phenothiazine; 2-chlorophenothiazine; 2-trifluoromethylphenothiazine; dihydrodibenzo-cycloheptene; and dihydrodibenzazepine. [ Lb. ]		[ 222 ]	QSTVWXYZ	500	100	0	
512(25)A Diethylene triamine, purity 96 percent or higher. [ Lb. ]		[ 221 ]	QSTVWXYZ	500	500	0	P-14
* 512(26)B Organic chemicals, as follows: (a) lysergic acid di ethyl amine; (b) malononitrile; (c) methyl dichlor phosphine; (d) methyl isonicotenate; and (e) methyl phosphonyl dichloride. [ Lb. ]		[ 222 ]	QSTVWXYZ	500	25	0	
* 512(27)B N, N-diethyl ethylene diamine (diethyl-amino ethylamine). [ Lb. ]		[ 222 ]	QSTVWXYZ	1,000	1,000	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 299.1.

<sup>2</sup> Certain herbicides, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 270.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Restricted * Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special * Licenses * List
				T	V	X	
* 512(28)B Carbonyl chloride (phosgene); and tri-    Lb.    222    QSTVWXYZ    500    500    0    P-13 chloromethyl chloroformate (diphosgene).							
* 512(29)B Lithium salts or yttrium salts of organic    Lb.    222    QSTVWXYZ    500    25    0    P-13 compounds.							
* 513(30)J Barium styphnate, lead styphnate, and    Lb.    228    QSWXYZ    —    —    100    tetrazene.							
* 512(31)D Organic chemicals, the following only:    Lb.    228    SWXYZ    —    —    100    cobalt salts of organic compounds (for example, cobalt acetate); tetrafluoroethylene; triethyl aluminum; trifluoromonochloroethylene; trimethyl aluminum; dieth- ylene triamine, less than 96 percent purity; chemicals as anti-knock agents, except tetraethyl lead (TEL) and tetramethyl lead (TML); and other organic compounds, n.e.c., usable as catalysts in petroleum and chemical processing operations.							
512(32)C Miscellaneous industrial and other or-    Lb.    228    SZ'    —    —    —    ganic chemicals, including intermediates, listed in § 399.2, Interpretation 24.							
* 512(33)F Other organic rubber compounding chem-    Lb.    228    SYZ    —    —    —    icals, n.e.c.							
* 512(34)E Other synthetic organic medicinal chem-    Lb.*    228    SXYZ    —    —    100    icals in bulk; and other miscellaneous industrial and other organic chemicals, including intermediates, n.e.c., classified under Schedule B Nos. 512.0210 through 512.0998. (Specify by name.) (Also specify 7-digit Schedule B No.)**							
513(1)A Fibrous and filamentary materials made    Lb.    221    QSTVWXYZ    500    100    0    of boron, beryllium carbide, beryllium oxide, tungsten monocarbide, or zirconium oxide, as defined in § 399.2, Interpretation 23.†							
513(2)A Boron element (metal), all other forms . .    Lb.    221    QSTVWXYZ    50    50    0							
513(3)A Calcium metal containing less than one    Lb.    261    QSTVWXYZ    100    100    0    hundredth (0.01) percent by weight of impurities other than magnesium and less than 10 parts per million of boron.							
513(4)A Lithium metal . . . . .    Lb.    221    QSTVWXYZ    500    100    0    P-7							
513(5)A Silicon, purity 99.99 percent or higher;    Lb.    241    QSTVWXYZ    500    0    0    and monocrystalline silicon.							
* 513(6)B Yttrium metal and powders . . . . .    Lb.    242    QSTVWXYZ    500    0    0							
513(7)A Monocrystalline and polycrystalline forms    Lb.    241    QSTVWXYZ    500    100    0    of the following metals: beryllium; hafnium; molybdenum; niobium (columbium); tantalum; titanium; and zirconium.							
* 513(8)B Monocrystalline and polycrystalline forms    Lb.    242    QSTVWXYZ    500    0    0    of tungsten.							
513(9)A Boric acid in which the boron-10 isotope    Cat. lb.    241    QSTVWXYZ    50    50    0    P-13 comprises more than 20 percent of the total boron content.							
513(10)A Chlorine trifluoride . . . . .    Lb.    241    QSTVWXYZ    50    50    0    P-13							
* 513(11)D Catalysts usable in petroleum and chem-    Lb.    228    SWXYZ    —    —    100    ical processing operations.							

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
 † See § 399.2, Interpretation 24(b), for commodities requiring a validated license for export to East Germany.  
 ‡ See § 370.10(d) for commodities which require export authorization from the U. S. Department of Justice.  
 § Dinitronaphthalene, tetranitronaphthalene, picric acid, and liquid pepper, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.  
 ¶ Report methanol in "gallons"; report acetylene in "thousand cubic feet"; and report glycerine in "content pound."  
 \*\* See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

CCL-8

513(12)—513(28)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Precipitating Number	* Validated Licenses Required for Country Groups Shown Below	* CLV \$ Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 513(12)B Magnesium oxide, precipitated or produced by electric arc, purity 97 percent or higher.	Lb.	242	QSTVWXYZ	500	50	0	
513(15)A Alumina-silica, aluminum oxide, or synthetic sapphire whiskers as defined in § 899.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	100	0	
513(14)A Monocrystals of rubies	Lb.	221	QSTVWXYZ	500	500	0	
* 513(15)D Alumina, all other types including fused, purity 99 percent or higher. (Specify percent of purity and particle size.)	Lb.	268	SWXYZ	—	—	100	
* 513(16)F Aluminum hydroxide	Lb.	268	SYZ	—	—	—	
513(17)A Beryllium oxides, hydroxides, peroxides, and compounds.	Lb.	241	QSTVWXYZ	500	500	0	
513(18)A Monocrystalline gallium compounds. (Specify by name.)	Lb.	241	QSTVWXYZ	500	0	0	
513(19)A Hafnium oxides containing more than 15 percent hafnium by weight. (State hafnium content.)	Lb.	241	QSTVWXYZ	100	100	0	
* 513(20)D Hydrazine hydrate; mixtures of hydrazine containing less than 70 percent of hydrazine equivalent; hydrocyanic acid (hydrogen cyanide); and chlorine. <sup>2</sup>	Lb.	228	SWXYZ	—	—	100	
513(21)A Monocrystalline indium compounds. (Specify by name.)	Lb.	241	QSTVWXYZ	500	250	0	
* 513(22)D Molybdenum oxide	Lb.	268	SWXYZ	—	—	100	
513(23)A Oxides, hydroxides, and peroxides of tantalum, niobium (columbium), or tantalum-niobium, containing 20 percent or more of tantalum or niobium.	Lb.	241	QSTVWXYZ	500	25	0	
513(24)A Zirconium oxide containing less than one part hafnium to 500 parts zirconium by weight. (Specify by name.) (State hafnium content.)	Lb.	241	QSTVWXYZ	500	500	0	
* 513(25)B Other oxides, hydroxides, and peroxides, as follows: (a) gallium, (b) hafnium, containing 15 percent or less hafnium by weight, (c) lithium, (d) rhenium, (e) tantalum, (f) niobium (columbium), (g) tantalum-niobium, and (h) zirconium, purity 97 percent or higher or stabilized with lime and/or magnesia. (Specify by name, and state hafnium content for (b) and (h).)	Lb.	242	QSTVWXYZ	500	25	0	
* 513(26)D Germanium oxides, hydroxides, and peroxides, purity 99.99 percent or higher; silicon, purity 99.9 percent up to but not including 99.99 percent; phosphorus, elemental; phosphorus oxychloride; and phosphorus trichloride.	Lb.	248	SWXYZ	—	—	100	
513(27)A Pyrographite (pyrolytic graphite) having a boron content of one part per million or less, the total thermal neutron absorption cross section being 5 millibarns per atom or less.	Lb.	211	QSTVWXYZ	500	500	0	P-8
513(28)A Pyrographite (pyrolytic graphite) whether or not coated or composited with other materials to improve its performances at elevated temperatures or to reduce its permeability to gases, having an apparent relative density of 1.90 or greater when compared to water at 60° F. (15.5° C.).	Lb.	211	QSTVWXYZ	500	500	0	P-8

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Hydrazine, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
513(29)G <sup>1</sup> Commodities listed in § 399.2, Inter-pretation 24.	Lb.	228	SZ <sup>2</sup>	—	—	—	
* 513(30)B <sup>3</sup> Helium isotopically enriched in the helium-3 isotope, in any form or quantity, and whether or not admixed with other materials, or contained in any equipment or device.	M.cu.ft.	222	QSTVWXYZ	0	0	0	R
* 513(31)B Other helium and mixtures thereof	M.cu.ft.	222	QSTVWXYZ	500	500	0	
* 513(32)F Other inorganic chemical elements, oxides, hydroxides, peroxides, and halogen salts, n.e.c., except liquified oxygen, nitrogen, hydrogen, argon, and neon; and rare gases. <sup>4</sup>		228	SYZ	—	—	—	
* 513(33)E Commodities not listed above, classified under Schedule B Nos. 513.1100 through 513.6932. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>5</sup>		228	SXYZ	—	—	100	
514(1)A Fibrous and filamentary materials made of aluminum nitride, boron carbide, boron nitride, beryllium carbide, beryllium oxide, silicon carbide, tungsten monocarbide, and zirconium oxide, as defined in § 399.2, Interpretation 23. <sup>6</sup>	Lb.	221	QSTVWXYZ	500	100	0	
514(2)A Aluminum hydride <sup>7</sup>	Lb.	221	QSTVWXYZ	500	100	0	
514(3)A Boron hydrides and other boron compounds and mixtures containing 5 percent or more boron, except fluoroborates, perborates, and inorganic borates.	Lb.	221	QSTVWXYZ	500	100	0	P-13
514(4)A Sodium azide	Lb.	241	QSTVWXYZ	500	0	0	P-13
514(5)A Boron compounds and mixtures, as follows: (a) boron trifluoride and its complexes; (b) boron carbide with a boron content of 74 percent or more by weight; (c) boron hydrides and nitrides, and (d) boron compounds and mixtures containing 5 percent or more boron, except boric oxides, borates, and fluoroborates.	Lb.	221	QSTVWXYZ	100	100	0	P-13
* 514(6)J Boron trichloride and its complexes	Lb.	228	QSWXYZ	—	—	100	
514(7)A Tantalum carbide	Lb.	261	QSTVWXYZ	500	100	0	
514(8)A Lead azide	Lb.	241	QSTVWXYZ	500	250	0	
* 514(9)J Molecular sieves, not loaded (for example, crystalline calcium aluminosilicate or crystalline sodium aluminosilicate). (Specify type and form, such as powder or pellets.)	Lb.	228	QSWXYZ	—	—	100	
514(10)A Monocrystals of ferrites and garnets, synthetic; and materials suitable for application in electromagnetic devices making use of the gyromagnetic resonance phenomenon. (Specify by name.)	Lb.	241	QSTVWXYZ	500	500	0	P-13
514(11)A Hydrogen peroxide, concentration of 85 percent. <sup>8</sup>	Lb.	241	QSTVWXYZ	500	0	0	P-13
514(12)A Hafnium compounds containing more than 15 percent hafnium by weight. (Specify by name and state hafnium content.)	Lb.	241	QSTVWXYZ	100	100	0	P-13

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See § 399.2, Interpretation 24(b), for commodities requiring a validated license for export to East Germany.

<sup>3</sup> A validated license is also required for export of these commodities to Canada.

<sup>4</sup> Liquified hydrogen, fluorine, nitrogen tetroxide, and perchloric fluoride, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>7</sup> Hydrogen peroxide or dioxide in excess of 85 percent concentration, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

CCL-10

514(13)—514(31)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Restrictions List
				T	V	X	
* 514(13)B Hafnium compounds containing 15 per- cent or less hafnium by weight. (Specify by name and state hafnium content.)	Lb.	242	QSTVWXYZ	500	100	0	P-13
514(14)A Beryllium compounds, including, but not limited to, beryllium nitrate, beryllium sulfate, beryllium carbonate, and zinc beryllium silicate. (Specify by name.)	Lb.	241	QSTVWXYZ	500	500	0	P-13
* 514(15)J Lead thiocyanate	Lb.	248	QSWXYZ	—	—	100	
* 514(16)D Cobalt compounds, n.e.c.; nickel chloride; potassium perchlorate; and sodium perchlorate.	Lb.	248	SWXYZ	—	—	100	
514(17)A Monocrystalline indium compounds; and monocrystalline gallium compounds. (Specify by name.)	Lb.	241	QSTVWXYZ	500	0	0	
* 514(18)B Other gallium compounds, n.e.c. (Spec- ify by name.)	Lb.	242	QSTVWXYZ	500	0	0	
* 514(19)D Germanium compounds, n.e.c., purity 99.99 percent or higher.	Lb.	248	SWXYZ	—	—	100	
514(20)A Hydrides in which lithium is compounded with hydrogen or complexed with other metals or aluminum hydride.	Lb.	241	QSTVWXYZ	0	0	0	
* 514(21)B Other lithium compounds, including cata- lysts.	Lb.	242	QSTVWXYZ	500	25	0	
514(22)A Tantalum, niobium (columbium), or tan- talum-niobium compounds, n.e.c., containing 20 percent or more of tantalum or niobium. (Specify by name.)	Lb.	241	QSTVWXYZ	500	250	0	
* 514(23)J Other tantalum or tantalum-niobium compounds. (Specify by name and state tantalum content.)	Lb.	248	QSWXYZ	—	—	100	
514(24)A Zirconium compounds containing less than one part hafnium to 500 parts zirconium by weight. (Specify by name and state hafnium content.)	Lb.	241	QSTVWXYZ	500	500	0	
* 514(25)B Silicon carbide, all types, 99 percent pu- rity or higher.	Lb.	262	QSTVWXYZ	500	500	0	
* 514(26)D Catalysts usable in petroleum and chem- ical processing operations.	Lb.	228	SWXYZ	—	—	100	
* 514(27)D Molybdenum salts and compounds	Lb.	268	SWXYZ	—	—	100	
* 514(28)F Tungsten carbide powder	Lb.	268	SYZ	—	—	—	
* 514(29)B Rhenium compounds	Lb.	242	QSTVWXYZ	100	100	0	
514(30)C <sup>1</sup> Inorganic chemicals listed in § 899.2, Interpretation 24.	Lb.	228	SZ <sup>2</sup>	—	—	—	
514(31)M Inorganic medicinal chemicals, n.e.c., in bulk, for which industrial grades are included under other Export Control Commodity Numbers. (Specify by name.) <sup>3, 4</sup>	Lb.						Export controls applicable to these commodities are those which apply to the industrial grades.

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See § 899.2, Interpretation 24(b), for commodities requiring a validated license for East Germany.

<sup>3</sup> See Supplement No. 3 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> See § 870.10(d) for commodities which require export authorization from the Department of Justice.

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLY & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 514(32)E Commodities not listed above, classified under Schedule B Nos. 514.4010 through 514.8000. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>1</sup>		228	SKYZ	—	—	100	
* 515(1)B Polonium metal, salts, and compounds. (Specify by name.)		242	QSTVWXYZ	500	0	0	
* 515(2)E Radioisotopes, cyclotron-produced or naturally occurring, having an atomic number 3 through 83, and compounds and preparations thereof; and radium and radium salts, alloys, and compounds. (Specify by name and isotope number.) <sup>4</sup>		248	SKYZ	—	—	100	
* 515(3)E Other radioisotopes, cyclotron-produced or naturally occurring, and compounds and preparations thereof. (Specify by name and isotope number.) <sup>4</sup>		242	QSTVWXYZ	100	100	0	
515(4)A Deuterium and compounds, mixtures, and solutions containing deuterium, including heavy water and heavy paraffin, in which the ratio of deuterium atoms to hydrogen atoms exceeds 1:5000 by number. (Specify by name.)		241	QSTVWXYZ	100	100	0	
* 515(5)B Other deuterium and compounds, mixtures, and solutions containing deuterium, including heavy water and heavy paraffin. (Specify by name.)		242	QSTVWXYZ	500	100	0	
515(6)A Lithium as follows: (a) lithium 6 and 7 isotopes, (b) hydrides in which lithium enriched in the 6 isotope is compounded with hydrogen or its isotopes, or complexed with other metals or aluminum hydride, (c) alloys containing any quantity of lithium enriched in the 6 isotope, or (d) any other material containing lithium enriched in the 6 isotope, including compounds, mixtures, and concentrates. (Specify by name and isotope number.)		241	QSTVWXYZ	0	0	0	
* 515(7)B Compounds enriched in lithium 7 isotope. (Specify by name.)		242	QSTVWXYZ	500	0	0	
* 515(8)E Other stable isotopes and their compounds. (Specify by name and isotope number.) <sup>4</sup>		248	SKYZ	—	—	100	
* 515(9)B Yttrium compounds and mixtures.	Lb.	242	QSTVWXYZ	500	25	0	
* 515(10)E Compounds and mixtures of rare earth metals or scandium. (Specify by name.) <sup>4</sup>	Lb.	248	SKYZ	—	—	100	
52(1)G <sup>5</sup> Mineral tar, tar oils, and crude chemicals from coal, petroleum, and natural gas.	Lb.	258	SZ <sup>6</sup>	—	—	—	
* 53(1)B Phosphor compounds specially prepared for Lasers, including but not limited to: neodymium-doped calcium tungstate; dysprosium-doped calcium fluoride; europium-trifluoroethenoyl acetate; or praseodymium-doped lanthanum trifluoride.	Lb.	242	QSTVWXYZ	500	100	0	
* 53(2)E Other coloring materials (composites), n.e.c., including colors as dispersed colors in plastics and rubber, except luminescent zinc pigments not radioactivated, and daylight fluorescent powders.	Lb.	248	SKYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> See § 370.10(d) for commodities which require export authorization from the Department of Justice.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> Radioisotopes produced in a nuclear reactor, and compounds and preparations thereof, and uranium and thorium compounds and special nuclear material, are under the jurisdiction of the U. S. Atomic Energy Commission. See § 370.10(c).

<sup>6</sup> See § 399.2, Interpretation 24(b), for commodities requiring a validated license for East Germany.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
53(3)A Enamels, varnishes, and other finishes made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Gal.	221	QSTVWXYZ	500	50	0	P-3
* 53(4)B Other enamels, varnishes, and finishes containing polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, polyparaxylylene, or polyimide-polyamide. (Specify name and value of these substances and total value of other materials.)	Gal.	222	QSTVWXYZ	500	500	0	P-3
* 53(5)B Other enamels, varnishes, and finishes, as follows: (a) partially made of polytetrafluoroethylene or polychlorotrifluoroethylene, or (b) made of chlorendic alkyd resin. (Specify by name.)	Gal.	222	QSTVWXYZ	500	500	0	P-3
* 53(6)E Varnishes, paints, and related materials, as follows: fluorescent ready-mixed; antifouling types, including all those containing cuprous oxide; and those containing silicones.	Gal.	248	SXYZ	—	—	100	
53(7)G Commodities not listed above, classified under Schedule B Nos. 531.0100 through 533.3500. (Also specify 7-digit Schedule B No.) <sup>2</sup>		248	SZ	—	—	—	
54(1)A Pharmaceutical goods wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)		241	QSTVWXYZ	500	250	0	P-3
* 54(2)D First aid boxes and kits, military; and cobalt dental alloys.		248	SWXYZ	—	—	100	
* 54(3)E Viruses for human, veterinary, or laboratory use, except <i>hog cholera virus</i> and <i>simultaneous virus</i> . <sup>3</sup>		248	SXYZ	—	—	100	
54(4)M Medicinal and pharmaceutical products donated for relief or charity by individuals or private agencies. (Specify by name.) <sup>4</sup>							Export controls applicable to each commodity under this classification are those which apply to the commodity when exported commercially under its individual Export Control Commodity Number.
54(5)G Commodities not listed above, classified under Schedule B Nos. 541.1010 through 541.9940. (Also specify 7-digit Schedule B No.) <sup>2</sup>		248	SZ	—	—	—	
* 55(1)E Surface-active agents, except <i>Aquarex</i> ; <i>Arekap 50 and 100</i> ; <i>Arlacel</i> ; <i>Avitez</i> ; <i>BCO</i> ; <i>Igepal</i> ; <i>CO-403</i> , <i>CO-530</i> , and <i>CO-850</i> ; <i>Morpelvoet Z</i> ; <i>Neutronyx 300 and 334</i> ; <i>NSAE Powder</i> ; <i>Sapamine MS and WL</i> ; <i>Sequestrene A, AA, and NA-2</i> ; <i>Span</i> ; and <i>Tween</i> .	Lb.	248	SXYZ	—	—	100	
55(2)G Commodities not listed above, classified under Schedule B Nos. 551.1010 through 554.8070. (Also specify 7-digit Schedule B No.)	Lb.	248	SZ	—	—	—	
56(1)G Commodities classified under Schedule B Nos. 561.1005 through 561.9075. <sup>4</sup>	S. ton	248	SZ	—	—	—	

<sup>2</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>3</sup> Trademark registered in the Patent Office of the United States.

<sup>4</sup> See § 899.2, Interpretation 24(b) for commodities requiring a validated license for export to East Germany.

<sup>5</sup> Special paints for concealment or deception, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

<sup>6</sup> Narcotics, among other commodities, require export authorization from the U. S. Department of Justice. See § 870.10(d).

<sup>7</sup> Potassium nitrate and certain ammonium nitrate mixtures, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* GLV \$ Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
57(1)G Oil well bullets; and jet perforators (shaped charges). <sup>1</sup>	Lb.	408	SZ	—	—	—	
57(2)A Primary explosives and priming compositions containing azides and/or azide complexes (for example, ortho fluoro phenyl azide, silver chlorazide, cuprammonium azide, etc.).	Lb.	241	QSTVWXYZ	500	25	0	P-14
* 57(3)J Primary explosives and priming compositions containing barium styphnate, diazodinitrophenol, lead dinitroresorcinate, lead styphnate, lead thiocyanate, mercury fulminate, and tetrazene.	Lb.	248	QSWXYZ	—	—	100	
* 57(4)E Other explosives and blasting agents; mining, blasting, and safety fuses; and electric squibs; Nos. 6 and 8 blasting caps, electric and nonelectric; delay electric blasting caps, including Nos. 6 and 8 and millisecond; and seismograph electric blasting caps, including SSS, Static-Master, Vibrocop SR, and SEISMO SR. <sup>2</sup>	Lb. <sup>4</sup>	248	SXYZ	—	—	100	
* 57(5)E <sup>3</sup> Shotgun shells, and parts <sup>4</sup>		218	SXYZ	—	—	100	
57(6)A Meteorological sounding rockets; non-irritant smoke flares, canisters, grenades, and charges; and other pyrotechnic articles having dual military and commercial use. <sup>5</sup>		211	QSTVWXYZ	0	0	0	
57(7)G <sup>6</sup> Commodities not listed above, classified under Schedule B Nos. 571.1100 through 571.4030. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>7</sup>		218	SZ	—	—	—	

## PLASTIC MATERIALS, REGENERATED CELLULOSE, AND ARTIFICIAL RESINS

581(1)A Materials designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 200 MHz.	Lb.	601	QSTVWXYZ	500	500	0	
581(2)A Synthetic film (including metallized) not exceeding 0.0010 inch (0.0254 mm.) in thickness and suitable for dielectric use in capacitors or condensers under No. 7299 which are subject to the Import Certificate/Delivery Verification procedure, except unmetallized and untensitized polyethylene terephthalate film 0.00035 inch (0.009 mm.) or more in thickness, and unmetallized polypropylene film.	Lb.	221	QSTVWXYZ	500	500	0	P-3
* 581(3)B Polymeric forms of perfluorotriazines, perfluoroaromatic ethers and esters, and perfluoroaliphatic ethers and esters.	Lb.	222	QSTVWXYZ	500	25	0	P-3
581(4)A Polyimides, polybenzimidazoles, polyimidoxyrrolones, aromatic polyamides, and poly-paraxylylenes, unfinished or semifinished, and composites or laminates thereof, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Lb.	221	QSTVWXYZ	500	250	0	P-3

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Certain explosives and fuses, among other commodities, require export authorization from the U. S. Department of State. All oil well bullets, jet perforators, shaped charges, or pellets used in oil well operations are under the jurisdiction of the U. S. Department of Commerce whether or not they contain explosive compounds mentioned on the Munitions List. See Supplement No. 2 to Part 370.

<sup>2</sup> Other blasting caps, igniters and detonators, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>3</sup> Report fuses in "linear feet" and caps in "thousand."

<sup>4</sup> Shotgun shells, and parts, require a validated license for export to the Republic of South Africa. A GLV dollar-value limit of \$50 is established for the shipment of shotgun shells and \$100 for the shipment of parts for shotgun shells to the Republic of South Africa.

<sup>5</sup> Hunting and sporting rifle cartridges (including powder-actuated types for industrial devices), cartridge cases, powder bags, bullets, jackets, cores, shells (excluding shotgun), projectiles, boosters, fuse and components thereof, primers and other detonating devices, and certain military pyrotechnical articles, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>6</sup> Report shotgun shells in "thousand."

<sup>7</sup> See § 399.2, Interpretation 24(b), for commodities requiring a validated license for export to East Germany.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Processing Indicator	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 581(5)B Polyimide-polyamide resins, unfinished or semifinished; and other composites or laminates containing polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, polyparaarylenes, or polyimide-polyamide. (Specify name and value of these substances and total value of other materials.)	[ Lb.	[ 222	[ QSTVWXYZ	[ 500	[ 500	[ 0	[ P-3
581(6)A Resin (plastic) composite structures or laminates, unfinished or semifinished (including molded shapes), as defined in § 399.2, Interpretation 23. <sup>1</sup>	[ Lb.	[ 221	[ QSTVWXYZ	[ 500	[ 100	[ 0	[ ]
* 581(7)B Other resin (plastic) composites, unfinished or semifinished (including molding compounds, laminates, and molded shapes), containing silica, quartz, carbon or graphite fibers in any form. <sup>1</sup>	[ Lb.	[ 223	[ QSTVWXYZ	[ 500	[ 100	[ 0	[ ]
* 581(8)B Chloroepoxy alkyd resins	[ Lb.	[ 222	[ QSTVWXYZ	[ 500	[ 500	[ 0	[ ]
* 581(9)A Fluorinated silicone rubbers and compounds. (Specify by name.)	[ Lb.	[ 221	[ QSTVWXYZ	[ 500	[ 100	[ 0	[ P-1
581(10)A Fluorocarbon polymers and copolymers as defined in § 399.2, Interpretation 22, and products wholly made thereof. (Specify by type.)	[ Lb.	[ 221	[ QSTVWXYZ	[ 500	[ 500	[ 0	[ P-3
* 581(11)D Other fluorocarbon polymers and copolymers; and other fluorocarbon polymer and copolymer products, as follows: (a) products wholly made thereof, (b) molding compositions containing more than 20 percent by weight of fluorocarbon polymers or copolymers, or (c) laminates partially made of fluorocarbon polymers or copolymers, including molded, decorative, or laminated with other materials or metals. (Specify by name.)	[ Lb.	[ 223	[ SWXYZ	[ —	[ —	[ 100	[ ]
581(12)A Pipe and tubing made of, lined with, or covered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.	[ Lb.	[ 221	[ QSTVWXYZ	[ 500	[ 100	[ 0	[ P-3
* 581(15)D Pipe and tubing made of, lined with, or covered with other fluorocarbon polymers or copolymers.	[ Lb.	[ 223	[ SWXYZ	[ —	[ —	[ 100	[ ]
* 581(14)D Irradiated polyolefin film, sheeting, or laminates; and polyethylene film, sheeting, or laminates containing any boron.	[ Lb.	[ 223	[ SWXYZ	[ —	[ —	[ 100	[ ]
* 581(14)B Methyl methacrylate, cross-linked, hot stretched, clear, film, sheeting, or laminates.	[ Lb.	[ 222	[ QSTVWXYZ	[ 500	[ 500	[ 0	[ ]
* 581(16)D Other methyl methacrylate, clear, film, sheeting, or laminates, ¼ inch or more in thickness; epoxy resins; ion exchange membranes; and ion exchange liquids.	[ Lb.	[ 248	[ SWXYZ	[ —	[ —	[ 100	[ ]
581(17)C Commodities listed in § 399.2, Interpretation 24.	[ Lb.	[ 223	[ SZ	[ —	[ —	[ —	[ ]
* 581(18)D Other silicone rubbers and compounds.	[ Lb.	[ 223	[ SWXYZ	[ —	[ —	[ 100	[ ]
* 581(19)E Commodities not listed above, classified under Schedule B Nos. 581.1005 to 581.9920. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>2</sup>	[ Lb.	[ 223	[ XYZ	[ —	[ —	[ 100	[ ]

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Nitrostarch, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Freezing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
<b>CHEMICAL MATERIALS AND PRODUCTS, N.E.C.</b>							
* 59(1)B Preparations and products containing butyl-2,4-dichlorophenoxyacetate (LNA) and/or 2,4,5-trichlorophenoxyacetate (LNE) in any concentration by weight.	Lb.	222	QSTVWXYZ	500	500	0	
* 59(2)D Weed killers, consisting primarily of boron compounds (for example, borates, borax); pesticidal commodities containing more than 75 percent by weight of organic phosphates; and herbicidal or antiplant commodities containing one or more of the following in amounts totaling, alone or in combination with another, 30 percent or more by weight: other chlorophenoxyacetic and chlorofluorophenoxyacetic acids and their salts and esters; alkyl aryl carbamates (including isopropyl N-phenylcarbamate and isopropyl N-(3-chlorophenyl)-carbamate); bromo alkylpyrimidines; aminochloro picolinic acid and its salts and esters; and cacodylic acid. <sup>1</sup>	Lb.	228	SWXYZ	—	—	100	
59(3)A Adhesives or cements made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylenes, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Lb.	221	QSTVWXYZ	500	100	0	P-3
* 59(4)B Other adhesives or cements containing polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, polyparaxylenes, or polyimide-polyamide. (Specify name and value of these substances and total value of other materials.)	Lb.	222	QSTVWXYZ	500	500	0	P-3
* 59(5)D Other adhesives or cements, as follows: (a) epoxy-based, and (b) serviceable at temperatures of plus 600° F. and over and/or below minus 202° F. (Specify name, quantity, and value of any activator, hardening agent, curing agent, diluent, or additive which is blended into or being exported with the epoxy-based adhesive or cement.)	Lb.	248	SWXYZ	—	—	100	
* 59(6)D Polyethylene wax containing any boron ...	Lb.	248	SWXYZ	—	—	100	
59(7)A Artificial waxes and prepared waxes, not emulsified or containing solvents, wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)	Lb.	241	QSTVWXYZ	500	500	0	
59(8)A Artificial graphite (including pyrolytic), having a boron content of one part per million or less, the total thermal neutron absorption cross section being 5 millibarns per atom or less.	Lb.	211	QSTVWXYZ	500	500	0	P-8
59(9)A Artificial graphite (including pyrolytic), whether or not coated or composited with other materials to improve its performance at elevated temperatures or to reduce its permeability to gases, having an apparent relative density of 1.90 or greater when compared to water at 60° F. (15.5° C.).	Lb.	211	QSTVWXYZ	500	500	0	P-8
59(10)A Carbon or graphite fibers in any form, as defined in § 399.2, Interpretation 23. <sup>2</sup>	Lb.	211	QSTVWXYZ	500	100	0	
* 59(11)B Other carbon or graphite fibers in any form (including chopped or macerated) whether or not coated or impregnated; and products thereof. <sup>3</sup>	Lb.	212	QSTVWXYZ	500	100	0	
* 59(12)J Other artificial graphite, whether or not coated or composited with other materials to improve its performance at elevated temperatures or to reduce its permeability to gases, having an apparent rela-	Lb.	218	QSWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Antiplant chemicals, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 270.

<sup>3</sup> See Supplement No. 2 to Part 270 for commodities which require export authorization from the U. S. Department of State.

CEL-16

59(12)—61(1)

Commodity Control List—599.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			Special Provisions
				T	V	X	
tive density (a) between 1.80 and 1.90 when compared to water at 60° F. (15.5° C.), or (b) between 1.70 and 1.80 when compared to water at 60° F. (15.5° C.), with a maximum particle grain size of 0.010 inch or less.							
* 59(13)D Prepared anti-knock compounds, <i>except</i> prepared compounds of TEL or TML; and prepared additives for lubricating oils, <i>except zinc diisooctylidithiophosphate lube oil additives.</i> (Specify by name.)		228	SWXYZ	—	—	100	
* 59(14)F Prepared rubber accelerators	Lb.	228	SYZ	—	—	—	
* 59(15)B Specially purified (electronic grade) synthetic polymer photoresist thinners and rinses.	Lb.	222	QSTVWXYZ	25	25	0	
* 59(16)J Molecular sieves, loaded (for example, crystalline calcium aluminosilicate or crystalline sodium aluminosilicate). (Specify type and form, such as powder or pellets, and loading material.)	Lb.	228	QSWXYZ	—	—	100	
* 59(17)D Activated carbon usable in petroleum and chemical processing operations.	Lb.	228	SWXYZ	—	—	100	
* 59(18)J Nickel compound catalysts and other catalysts usable in petroleum and chemical processing operations.	Lb.	228	QSWXYZ	—	—	100	
59(19)A Solvents or mixtures, n.e.c., containing more than 50 percent trichlorotrifluoroethane (R-118) or dichlorotetrafluoroethane (R-114).	Lb.	221	QSTVWXYZ	500	500	0	P-14
59(20)A Hydraulic fluids formulated wholly or in part with fluorinated or chlorinated silicones, fluoro-alcohol esters, or perfluoro-alkyl ethers. (Specify by name.)	Bbl. <sup>1</sup>	251	QSTVWXYZ	500	500	0	P-14
59(21)A Hydraulic fluids which are or which contain as the principal ingredient petroleum (mineral) oils and having all of the following characteristics: (a) a pour point of minus 30° F. (minus 34° C.) or lower, (b) a viscosity index (VI) of 75 or greater, and (c) are thermally stable at plus 700° F. (plus 371° C.) <sup>2</sup>	Bbl. <sup>1</sup>	251	QSTVWXYZ	500	100	0	P-14
* 59(22)D Other hydraulic fluids, oils, and lubricants, petroleum or synthetic based.	Bbl. <sup>1</sup>	258	SWXYZ	—	—	100	
59(23)G <sup>3</sup> Commodities listed in § 399.2, Interpretation 24.		228	SZ <sup>4</sup>	—	—	—	
* 59(24)E Commodities not listed above, classified under Schedule B Nos. 599.2010 through 599.9970. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>5</sup>		228	SKYZ	—	—	100	

## SECTION 6—MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL

61(1)C<sup>6</sup> Leather, leather manufactures, n.e.c., and dressed fur skins.<sup>7</sup> || 208 || SZ<sup>8</sup> || — || — || —

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Barrel of 42 gallons.

<sup>3</sup> Thermal stability is determined as follows: Twenty c.c. of the fluid under test shall be placed in a 46 c.c. stainless steel chamber containing one each of .5 inch diameter balls of M-10 tool steel, S1500 steel, and naval bronze. The chamber shall be purged with nitrogen, sealed at atmospheric pressure, and the temperature raised to 371 plus or minus 4° C. and maintained at this temperature for six hours. The specimen will be considered thermally stable if at the completion of the above procedure all of the following conditions are met: (a) the weight loss of each ball is less than 0.1 milligram per square centimeter of surface, (b) the change in original viscosity as determined at 38° C. is less than 15 percent, and (c) the total acid or base number is less than 40.

<sup>4</sup> See § 399.2, Interpretation 24(b), for commodities requiring a validated license for export to East Germany.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>7</sup> See § 370.10(i) for U.S. endangered native fish and wildlife and migratory birds, or any part, product, egg, or offspring thereof, or the dead body or parts thereof whether or not included in a manufactured product, which require export authorization from the U.S. Department of the Interior.

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
62(1)A Vulcanized and unvulcanized rubber made of fluorinated elastomeric material, and articles made therefrom. (Specify by name and type.)	Lb. <sup>1</sup>	221	QSTVWXYZ	500	500	0	
* 62(2)E Masterbatches, all forms, and other unvulcanized natural or synthetic rubber, n.e.c., except styrene-butadiene (SBR), butyl rubber, cis-rubber type masterbatches, rubber cement, and chemically blown or foam sponge rubber.	Lb.	228	WXYZ	—	—	100	
62(3)A Materials designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 200 MHz.	Lb.	601	QSTVWXYZ	500	500	0	
62(4)A Hose and tubing lined with or covered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.	Lb.	221	QSTVWXYZ	500	100	0	P-1
* 62(5)D Rubber hose and tubing lined with or covered with other fluorocarbon polymers or copolymers.	Lb.	228	SWXYZ	—	—	100	
62(6)A Tires, of a kind specially constructed to be bullet proof or run when deflated. (Specify type.)	No.	211	QSTVWXYZ	500	0	0	
* 62(7)J Other aircraft tires, except used aircraft tires not suitable for recapping for aircraft use.	No.	218	QSWXYZ	—	—	100	
* 62(8)F Sponge rubber, chemically blown or foam, except of styrene-butadiene (SBR) and butyl rubber; and other sponge and foam rubber articles, n.e.c., except of styrene-butadiene (SBR) and butyl rubber, floor and wall coverings, crib sheets, water cushions and pillows, and foam rubber stripping and sponges.	Lb.	218	SYZ	—	—	—	
62(9)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 621.0105 through 629.9900. (Also specify 7-digit Schedule B No.)	Lb.	218	SZ <sup>3</sup>	—	—	—	
63(1)G <sup>2</sup> Commodities classified under Schedule B Nos. 631.1010 through 633.0020.	Lb.	218	SZ <sup>3</sup>	—	—	—	
64(1)G <sup>2</sup> Paper, paperboard, and manufactures thereof.	Lb.	218	SZ <sup>3</sup>	—	—	—	

## TEXTILE YARN, FABRICS, MADE-UP ARTICLES AND RELATED PRODUCTS

651(1)A Monofil, filament yarn, and thread of filament yarn wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)	Lb.	221	QSTVWXYZ	500	500	0	P-3
* 651(2)D Monofil, filament yarn, and thread of filament yarn wholly made of other fluorocarbon polymers or copolymers. (Specify by type.)	Lb.	228	SWXYZ	—	—	100	
651(3)A Monofil, filament yarn, and thread of filament yarn made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylenes. (Specify by name.)	Lb.	221	QSTVWXYZ	500	500	0	P-3

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report cement in "gallon."<sup>2</sup> See § 399.2, Interpretation 32(b), for commodities requiring a validated license for export to East Germany.<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

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651(4)—653(8)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated Licenses Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
651(4)A Yarn, roving, and strand made from glass, silica, quartz, or glass-like fibers, as defined in § 899.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	500	0	
* 651(5)B Other continuous yarn and roving suitable for use in filament-wound structures, made of glass fibers having: (a) modulus of elasticity of 10.5 times 10 <sup>6</sup> psi or greater, or (b) a tensile strength to density ratio (figure of merit) of 800,000 psi or greater. <sup>2</sup>	Lb.	222	QSTVWXYZ	500	500	0	
* 651(6)B Other yarn, roving, and strand made from glass, silica, quartz, or glass-like fibers, whether or not coated or impregnated. <sup>2</sup>	Lb.	222	QSTVWXYZ	500	500	0	
651(7)C Commodities not listed above, classified under Schedule B Nos. 651.1000 through 651.9500. (Also specify 7-digit Schedule B No.)	Lb.	218	SZ	—	—	—	
* 652(1)B Used or reject fabric bearing the design of any version of the flag of the United States of America.		212	QSTVWXYZ	500	0	0	
652(2)C Commodities not listed above, classified under Schedule B Nos. 652.1100 through 652.8000. (Also specify 7-digit Schedule B No.)		218	SZ	—	—	—	
* 653(1)B Used or reject fabric bearing the design of any version of the flag of the United States of America.		212	QSTVWXYZ	500	0	0	
653(2)A Broad woven fabric made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylolones. (Specify by name.)	Lb.	221	QSTVWXYZ	500	500	0	P-3
653(3)A Broad woven fabric wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)		221	QSTVWXYZ	500	500	0	P-3
* 653(4)D Broad woven fabric, as follows: (a) wholly made of other fluorocarbon polymers or copolymers, or (b) coated or impregnated with fluorocarbon polymers or copolymers.		228	SWXYZ	—	—	100	
653(5)A Broad and narrow woven fabric, including tape, made from glass, silica, quartz, or glass-like fibers, in any form, as defined in § 899.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	500	0	
* 653(6)B Other continuous tapes suitable for use in filament-wound structures, made of glass fibers having: (a) a modulus of elasticity of 10.5 times 10 <sup>6</sup> psi or greater, or (b) a tensile strength to density ratio (figure of merit) of 800,000 psi or greater. <sup>2</sup>	Lb.	222	QSTVWXYZ	500	500	0	
* 653(7)B Other broad and narrow woven fabrics, including tape, made from glass, silica, quartz, or glass-like fibers, whether or not coated or impregnated. <sup>2</sup>		222	QSTVWXYZ	500	500	0	
* 653(8)F Other fabrics wholly or in chief weight of glass fibers.		228	SYZ	—	—	—	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>1</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>2</sup> Tensile strength to density ratio (figure of merit) is tensile strength times (2.56 divided by specific gravity of the fiber).

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
653(9)C Commodities not listed above, classified   .....   218   SZ   —   —   —							
under Schedule B Nos. 653.1010 through 653.9000. (Also specify 7-digit Schedule B No.)							
654(1)A Narrow woven fabric and trimming   Lb.   221   QSTVWXYZ   500   500   0   P-3							
wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)							
* 654(2)D Narrow woven fabric wholly made of   Lb.   228   SWXYZ   —   —   100							
other fluorocarbon polymers or copolymers. (Specify by type.)							
654(3)A Narrow woven fabric made of poly-   Lb.   231   QSTVWXYZ   500   250   0   P-3							
imides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes. (Specify by name.)							
654(4)C Commodities not listed above, classified   Lb.   218   SZ   —   —   —							
under Schedule B Nos. 654.0110 through 654.0740. (Also specify 7-digit Schedule B No.)							
* 655(1)B All flags of the United States of Amer-   Lb.   212   QSTVWXYZ   500   0   0							
ica, except new flags having 50 stars; and used or reject felt materials bearing the design of any version of the flag of the United States of America.							
655(2)A Textile fabrics and articles, n.e.c., wholly   Lb.   221   QSTVWXYZ   500   500   0   P-3							
made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)							
655(3)A Textile fabrics and articles, n.e.c., made   .....   231   QSTVWXYZ   500   250   0   P-3							
of, coated, or impregnated with polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)							
* 655(4)B Other textile fabrics and articles, n.e.c.,   .....   222   QSTVWXYZ   500   500   0   P-3							
coated or impregnated with polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes. (Specify name and value of these substances and total value of other materials.)							
655(5)A Textile fabrics made from glass, silica,   Sq. yd.   221   QSTVWXYZ   500   100   0							
quartz, or glass-like fibers, as defined in § 899.2, Interpretation 23. <sup>2</sup>							
* 655(6)B Other textile fabrics, n.e.c., made from   Sq. yd.   222   QSTVWXYZ   500   100   0							
silica or quartz fibers, coated or impregnated. <sup>2</sup>							
655(7)A Textile tubing and hose lined with or cov-   Lb.   221   QSTVWXYZ   500   100   0   P-3							
ered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.							
* 655(8)D Other textile fabrics, tubing, hose, and   Lb.   228   SWXYZ   —   —   100							
articles, n.e.c., wholly made of, or lined, covered, or impregnated with other fluorocarbon polymers or copolymers. (Specify by type.)							
* 655(9)D Silicone rubber insulating tape .....   Lb.   228   SWXYZ   —   —   100							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See § 899.2, Interpretation 22(b), for commodities requiring a validated license for export to East Germany.

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>4</sup> See Supplement No. 2 to Part 270 for commodities which export authorization from the U. S. Department of State.

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655(10)—662(2)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 655(10)F Other rubberized tape, textile base, and textile fabric, n.e.c., made of or employing synthetic rubber.	Sq. yd. <sup>1</sup>	228	SYZ	—	—	—	
655(11)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 655.1010 through 655.9020. (Also specify 7-digit Schedule B No.) <sup>3</sup>		218	SZ <sup>4</sup>	—	—	—	
656(1)A Bags, sacks, and made-up textile articles, n.e.c., wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22. (Specify by type.)	Lb.	221	QSTVWXYZ	500	500	0	P-3
* 656(2)D Bags, sacks, and made-up textile articles, n.e.c., wholly made of other fluorocarbon polymers or copolymers; and narrow fabrics coated or impregnated with fluorocarbon polymers or copolymers. (Specify by type.)	Lb.	228	SWXYZ	—	—	100	
656(3)A Made-up textile articles, n.e.c., made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Lb.	221	QSTVWXYZ	500	250	0	P-3
* 656(4)B Other made-up textile articles, n.e.c., made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylylenes. (Specify name and value of these substances and total value of other materials.)	Lb.	222	QSTVWXYZ	500	500	0	P-3
* 656(5)B All flags of the United States of America, except new flags having 50 stars.	Lb.	212	QSTVWXYZ	500	0	0	
656(6)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 656.1010 through 656.9240. (Also specify 7-digit Schedule B No.) <sup>3</sup>	Lb.	218	SZ <sup>4</sup>	—	—	—	
657(1)G <sup>2</sup> Commodities classified under Schedule B Nos. 657.8010 through 657.8000.		218	SZ <sup>4</sup>	—	—	—	
NONMETALLIC MINERAL MANUFACTURES, N.E.C. <sup>5</sup>							
661(1)G <sup>2</sup> Commodities classified under Schedule B Nos. 661.1000 through 661.8320.		268	SZ <sup>4</sup>	—	—	—	
* 662(1)B High temperature refractory brick and similar shapes, cement, mortar, and other refractory construction materials, n.e.c., containing 97 percent or more by weight beryllium oxide or zirconium oxide, or containing zirconium oxide stabilized with lime and/or magnesium oxide. (Specify type of brick and similar shapes; specify name of other refractories.)	Lb. <sup>6</sup>	212	QSTVWXYZ	500	500	0	P-5
662(2)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 662.8100 through 662.4620. (Also specify 7-digit Schedule B No.) <sup>3</sup>		218	SZ <sup>4</sup>	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Report tape in "pound."

<sup>3</sup> See § 899.2, Interpretation 22(b), for commodities requiring a validated license for export to East Germany.

<sup>4</sup> Gas and incandescent mantles containing thorium require export authorization from the Atomic Energy Commission. See § 370.10(e).

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> Tow targets, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>7</sup> Refractories for rockets, guided missiles, and jet engines, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>8</sup> Report brick and similar shapes except plastic brick and shapes in "thousand."

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Restricting Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
663(1)A Honing stones specially designed for gun bar- rel honing heads, hand- or power-operated machines.	Lb.	421	QSTVWXYZ	500	0	0	
663(2)A Diamond grinding wheels fabricated with polyimides, polybenzimidazoles, polyimidazopyrro- lones, aromatic polyamides, and polyparaxylylenes, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Carat	231	QSTVWXYZ	500	250	0	
* 663(3)B Other diamond grinding wheels fabricated with polyimides, polybenzimidazoles, polyimidazo- pyrrolones, aromatic polyamides, and polyparaxylylenes, where the value of such contained polymeric substance in combination with other fluorocarbon polymers or copolymers, is less than 50 percent of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)	Carat	232	QSTVWXYZ	500	500	0	
663(4)A Artificial graphite (including pyrolytic) products, n.e.c., including refractory, having a boron content of one part per million or less, the total thermal neutron absorption cross section being 5 milli- barns per atom or less.	Lb.	211	QSTVWXYZ	500	500	0	P-8
663(5)A Artificial graphite (including pyrolytic) products, n.e.c., including refractory, <i>except boats and crucibles</i> , whether or not coated or composited with other materials to improve their performance at elevated temperatures or to reduce their permeability to gases, having an apparent relative density of 1.90 or greater when compared to water at 60° F. (15.5° C.).	Lb.	211	QSTVWXYZ	500	500	0	P-8
663(6)A Carbon or graphite fibers in any form, as defined in § 399.2, Interpretation 23. <sup>1</sup>	Lb.	211	QSTVWXYZ	500	100	0	
* 663(7)B Other carbon or graphite fibers in any form (including chopped or macerated), whether or not coated or impregnated; and products thereof. <sup>1</sup>	Lb.	212	QSTVWXYZ	500	100	0	
* 663(8)B Boats and crucibles made of artificial non- pyrolytic graphite having an apparent relative density of 1.90 or greater when compared to water at 60° F. (15.5° C.).	Lb.	212	QSTVWXYZ	500	500	0	P-8
* 663(9)J Other artificial graphite products, n.e.c., including refractory, whether or not coated or composited with other materials to improve their performance at elevated temperatures or to reduce their per- meability to gases, having an apparent relative density (a) between 1.80 and 1.90 when compared to water at 60° F. (15.5° C.), or (b) between 1.70 and 1.80 when compared to water at 60° F. (15.5° C.), with a maximum particle grain size of 0.010 inch or less.	Lb.	218	QSWXYZ	—	—	100	
* 663(10)B Refractory products (a) wholly made of boron nitride, (b) made of boron carbide with a boron content of 74 percent or more, or (c) made of other boron compounds containing 5 percent or more boron.	Lb.	222	QSTVWXYZ	500	500	0	P-13
* 663(11)D Refractory products made of boron car- bide with a boron content of less than 74 percent.	Lb.	228	SWXYZ	—	—	100	
* 663(12)B Beryllium oxide ceramic tubes, crucibles, and shapes in semifabricated or fabricated form.	Lb.	212	QSTVWXYZ	500	100	0	P-5
* 663(13)B Crucibles containing 97 percent or more by weight of magnesium oxide, beryllium oxide, or zirconium oxide, or containing zirconium oxide stabilized with lime and/or magnesium oxide. (Specify number	Lb.	212	QSTVWXYZ	100	100	0	P-5

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV B Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
of crucibles, types of crucibles by type number, capacity of each in pounds, whether heavy or thin wall, and purity rating (percent).)							
* 663(14)B Refractory products other than refractory construction materials, n.e.c., containing 97 percent or more by weight of magnesium oxide, beryllium oxide, or zirconium oxide, or containing zirconium oxide stabilized with lime and/or magnesium oxide. (Specify by name.) <sup>1</sup>	Lb.	212	QSTVWXYZ	500	100	0	P-5
* 663(15)D Packing, gaskets, textiles, yarns, and other manufactures of asbestos coated or impregnated with fluorocarbon polymers or copolymers.		228	SWXYZ	—	—	100	
663(18)C Commodities not listed above, classified under Schedule B Nos. 663.1110 through 663.9200. (Also specify 7-digit Schedule B No.) <sup>4</sup>		218	SZ	—	—	—	
664(1)A Lens blanks and optical glass, not optically worked, of polycrystalline silicon of a purity of 99.99 percent or more; and of monocrystalline silicon.	Lb.	241	QSTVWXYZ	500	0	0	
* 664(2)D Lens blanks, not optically worked, of polycrystalline silicon of a purity of 99.9 percent up to but not including 99.99 percent.	Lb.	248	SWXYZ	—	—	100	
664(3)A Optical glass and lens blanks, not optically worked, specially fabricated for equipment providing amplification or oscillation by means of stimulated electromagnetic radiation, such as Masers, Lasers, or Iasers. (Specify by name and type.) <sup>4</sup>	Lb.	611	QSTVWXYZ	500	50	0	
664(4)A Nonflexible fused fiber optic plates or bundles having all the following characteristics: (a) a fiber pitch (center to center spacing) of less than 15 microns, (b) a light-absorbing medium surrounding each fiber, or interstitially placed between fibers, and (c) a diameter greater than 1/4 inch.	Lb.	631	QSTVWXYZ	500	100	0	
* 664(5)B Ultra flat glass blanks, coated or uncoated, specially prepared for use in the production of masks for micro-electronic circuitry manufacture. (Specify by size and number.)	Lb.	212	QSTVWXYZ	0	0	0	
664(6)A Articles designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 200 MHz.		601	QSTVWXYZ	500	500	0	
664(7)A Glass, silica, quartz, or glass-like fibers in any form, as defined in § 399.2, Interpretation 23. <sup>4</sup>	Lb.	221	QSTVWXYZ	500	100	0	
* 664(8)B Other glass, silica, or quartz fibers in any form (including chopped or macerated and whether or not coated or impregnated); and articles thereof (including mats and felts), n.e.c. <sup>4</sup>		222	QSTVWXYZ	500	100	0	
664(9)A Glass fiber pipe and tubing lined with or covered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.		221	QSTVWXYZ	500	100	0	P-3

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Refractories for rockets, guided missiles, and military jet engines, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part #10.

<sup>3</sup> Report gaskets, packing, textiles, and yarns in "pound."

<sup>4</sup> See § 399.2, Interpretation 23(b), for commodities requiring a validated license for export to East Germany.

<sup>5</sup> See Supplement No. 2 to Part #10 for commodities which require export authorization from the U. S. Department of State.

<sup>6</sup> Report unit for each commodity in accordance with Schedule B requirement.

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Priority Precedence	Validated Licenses Required for Country Groups Shown Below	GLV \$ Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 664(10)D Other glass fiber articles, as follows: [ . . . . ] 228 [ SWXYZ [ — [ — [ 100 [ ] (a) pipe and tubing lined with or covered with other fluorocarbon polymers or copolymers, or (b) articles containing more than 20 percent by weight of fluoro- carbon polymers or copolymers.							
664(11)G <sup>1</sup> Commodities not listed above, classified [ . . . . ] 228 [ SZ [ — [ — [ — [ ] under Schedule B Nos. 664.1800 through 664.9450. (Also specify 7-digit Schedule B No.) <sup>2</sup>							
665(1)G <sup>1</sup> Commodities classified under Schedule B [ . . . . ] 218 [ SZ [ — [ — [ — [ ] Nos. 665.1110 through 665.8500.							
666(1)G Commodities classified under Schedule B [ . . . . ] 218 [ SZ [ — [ — [ — [ ] Nos. 666.4000 through 666.6000.							
667(1)A Quartz crystals, natural or synthetic, un- [ Lb. ] 611 [ QSTVWXYZ [ 500 [ 100 [ 0 [ ] worked or worked, not mounted, as follows: (a) specially designed for use as filters; or (b) for use as oscillators and (i) designed for operation over a tem- perature range wider than 100° C., whose upper limit is above 85° C., or (ii) designed for a frequency stability of plus or minus 0.003 percent or better over the rated temperature range. (Specify characteristics.)							
* 667(2)B Lithium-containing minerals (for exam- [ . . . . ] 242 [ QSTVWXYZ [ 500 [ 25 [ 0 [ P-3 ple, spodumene).							
667(3)A Monocrystals of ferrites, garnets, and [ Lb. ] 241 [ QSTVWXYZ [ 500 [ 500 [ 0 [ P-13 rubies, synthetic; and materials suitable for appli- cation in electromagnetic devices making use of the gyromagnetic resonance phenomenon. (Specify by name.)							
667(4)A Sapphire whiskers as defined in § 399.2, [ Lb. ] 221 [ QSTVWXYZ [ 500 [ 100 [ 0 [ ] Interpretation 23. <sup>3</sup>							
667(5)G <sup>1</sup> Commodities not listed above, classified [ . . . . ] 218 [ SZ [ — [ — [ — [ ] under Schedule B Nos. 667.1000 and 667.4020. (Also specify 7-digit Schedule B No.)							
<b>IRON AND STEEL</b>							
* 671(1)B Ferroboron. (Specify alloy content.) . . . [ Lb. ] 262 [ QSTVWXYZ [ 500 [ 100 [ 0 [ P-7							
671(2)A Ferrozirconium containing more than 50 [ Lb. ] 261 [ QSTVWXYZ [ 500 [ 100 [ 0 [ ] percent zirconium in which the ratio of hafnium content to zirconium content is less than one part to 500 parts by weight. (Specify hafnium content.)							
* 671(3)J Ferrotantalum; and ferrocolumbium-tan- [ Lb. ] 268 [ QSWXYZ [ — [ — [ 100 [ ] talum.							
* 671(4)D Ferrocobalt. (Specify alloy content.) [ Lb. ] 268 [ SWXYZ [ — [ — [ 100 [ ] [Report cobalt melting base materials in No. 6895.]							
671(5)G Commodities not listed above, classified [ Lb. ] 268 [ SZ [ — [ — [ — [ ] under Schedule B Nos. 671.1000 through 671.5080. (Also specify 7-digit Schedule B No.)							
672(1)A Ingots, blanks for tubes and pipes, coils [ Lb. ] 261 [ QSTVWXYZ [ 500 [ 100 [ 0 [ P-7 for rolling, blooms, billets, slabs, sheet bars, and roughly forged pieces, alloy steel (including stainless), special types Class 1. <sup>4</sup>							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See § 399.2, Interpretation 32(b), for commodities requiring a validated license for export to East Germany.

<sup>3</sup> See Supplement No. 2 to Part 270 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> Report pig iron, ferromanganese, ferrochrome, and ferrosilicon in "short ton."

<sup>6</sup> Specify recognized designation (AISI, BAE, NE number, etc.), or percentage of each alloying element.

<sup>7</sup> For definitions of "special types" of alloy steel, see § 399.2, Interpretations 8 and 9.

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672(2)—675(5)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preference Number	Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 672(2)J Ingots, blanks for tubes and pipes, coils    Lb. for rerolling, blooms, billets, slabs, sheet bars, and roughly forged pieces, alloy steel, special types Class 2. <sup>1, 2</sup>	268	QSWXYZ	—	—	100		
672(3)G Commodities not listed above, classified    Lb. under Schedule B Nos. 672.1000 through 672.9000. (Also specify 7-digit Schedule B No.)	268	SZ	—	—	—		
673(1)A Bars, rods, angles, shapes, and sections,    Lb. alloy steel, special types Class 1. <sup>1, 2</sup>	261	QSTVWXYZ	500	100	0	P-8	
* 673(2)J Bars, rods, angles, shapes, and sections,    Lb. alloy steel, special types Class 2. <sup>1, 2</sup>	268	QSWXYZ	—	—	100		
* 673(3)J Other alloy or carbon projectile or shell    Lb. steel in the forms of bars, rods, angles, shapes, and sections.	268	QSWXYZ	—	—	100		
673(4)G Commodities not listed above, classified    Lb. under Schedule B Nos. 673.1810 through 673.5400. (Also specify 7-digit Schedule B No.)	268	SZ	—	—	—		
674(1)A Iron, steel, or alloy steel plates and sheets    Lb. of magnetic materials as defined in § 899.2, Inter- pretation 6(a), coated or uncoated.	261	QSTVWXYZ	500	100	0	P-8	
674(2)A Plates and sheets, alloy steel, special    Lb. types Class 1, coated or uncoated. <sup>1, 2</sup>	261	QSTVWXYZ	500	100	0	P-8	
674(3)A Carbon steel plates and sheets, gilding    Lb. metal clad, coated or uncoated.	261	QSTVWXYZ	500	100	0	P-8	
* 674(4)J Plates and sheets, alloy steel, special    Lb. types Class 2, coated or uncoated. <sup>1, 2</sup>	268	QSWXYZ	—	—	100		
* 674(5)J Other cold rolled, grain oriented, electri-    Lb. cal steel sheets with a thickness of 0.006 inch or less.	268	QSWXYZ	—	—	100		
674(6)G Other iron or steel plates and sheets,    Lb. coated or uncoated. <sup>4</sup>	268	SZ	—	—	—		
675(1)A Carbon or alloy steel hoop and strip of    Lb. magnetic materials as defined in § 899.2, Interpre- tation 6(a), coated or uncoated.	261	QSTVWXYZ	500	100	0	P-8	
675(2)A Hoop and strip, alloy steel, special types    Lb. Class 1; and carbon steel hoop and strip, gilding metal clad. <sup>1, 2</sup>	261	QSTVWXYZ	500	100	0	P-8	
* 675(3)C Thermo bimetal, thermometal, and ther-    Lb. mostatic metal, chief value steel.	262	QSVWXYZ	—	100	0	P-8	
* 675(4)J Hoop and strip, alloy steel, special types    Lb. Class 2, coated or uncoated. <sup>1, 2</sup>	268	QSWXYZ	—	—	100		
* 675(5)J Other cold rolled, grain oriented elec-    Lb. trical steel hoop and strip with a thickness of 0.006 inch or less.	268	QSWXYZ	—	—	100		

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Specify recognized designation (AISI, SAE, NE number, etc.), or percentage of each alloying element.

<sup>3</sup> For definitions of "special types" of alloy steel, see § 899.2, Interpretations 8 and 9.

<sup>4</sup> Armor plate, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Priority Number	Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
675(6)C Other carbon or alloy steel hoop and strip.	Lb.	268	SZ	—	—	—	
676(1)C Rails and railway track maintenance material, iron or steel.	Lb.	268	SZ	—	—	—	
677(1)A Wire, alloy steel, special types Class 1. <sup>1, 2</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 677(2)J Wire, alloy steel, special types Class 2. <sup>1, 2</sup>	Lb.	268	QSWXYZ	—	—	100	
677(3)G Other carbon or alloy steel wire, coated or uncoated.	Lb.	268	SZ	—	—	—	
678(1)A Tubes, pipes, and fittings therefor, lined with or covered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 678(2)D Tubes, pipes, and fittings therefor, lined with or covered with other fluorocarbon polymers or copolymers.	Lb.	268	SWXYZ	—	—	100	
* 678(3)B Pressure tubes and pipes, and fittings therefor, of 8 inches or more inside diameter, having a wall thickness of 8 percent or more of the inside diameter and made of (a) stainless steel, or (b) other alloy steel containing 10 percent or more nickel and/or chromium.	Lb.	262	QSTVWXYZ	500	500	0	
678(4)A Tubes and pipes, alloy steel, special types Class 1. <sup>1, 2</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 678(5)J Tubes and pipes, alloy steel, special types Class 2. <sup>1, 2</sup>	Lb.	268	QSWXYZ	—	—	100	
* 678(6)D Other line pipe, carbon or alloy steel. . . .	Lb.	268	SWXYZ	—	—	100	
678(7)C Commodities not listed above, classified under Schedule B Nos. 678.1010 through 678.5060. (Also specify 7-digit Schedule B No.)	Lb.	268	SZ	—	—	—	
679(1)A Castings and forgings, alloy steel, special types Class 1, except grinding balls. <sup>3, 4</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 679(2)J Castings and forgings, alloy steel, special types Class 2. <sup>1, 2, 3</sup>	Lb.	268	QSWXYZ	—	—	100	
679(3)G Other iron or steel castings and forgings in the rough state, not listed above, classified under Schedule B Nos. 679.1010 through 679.3030. (Also specify 7-digit Schedule B No.) <sup>4</sup>	Lb.	268	SZ	—	—	—	
<b>NONFERROUS METALS<sup>5</sup></b>							
680(1)C United States and foreign coins, all metals other than gold. <sup>6</sup>	Troy oz.	218	SZ	—	—	—	
681(1)A Platinum based magnetic materials as defined in § 399.2, Interpretation 6(a).	Troy oz.	261	QSTVWXYZ	500	100	0	P-3

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> Specify recognized designation (AISI, SAE, NE number, etc.), or percentage of each alloying element.  
<sup>3</sup> For definitions of "special types" of alloy steel, see § 399.2, Interpretations 2 and 3.  
<sup>4</sup> Castings and forgings of any article enumerated in Supplement No. 2 to Part 370 require export authorization from the U.S. Department of State.  
<sup>5</sup> See § 370.10(b) for gold requiring export authorization from the U. S. Treasury Department.

CCL-26

681(2)—683(7)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
			T	V	X	
681(2)G Commodities not listed above, classified [ Troyoz. ] 268 [ ] under Schedule B Nos. 681.1120 through 681.2240. (Also specify 7-digit Schedule B No.)		SZ	—	—	—	
* 682(1)B Pressure tube and pipe, copper-nickel [ Lb. ] 272 [ ] alloy, of 8 inches or more inside diameter and hav- ing a wall thickness of 8 percent or more of the inside diameter.		QSTVWXYZ	100	100	0	R
* 682(2)B Pressure tube and pipe fittings, copper- [ Lb. ] 272 [ ] nickel alloy, having a tube or pipe size con- nection of 8 inches or more inside diameter, for tube or pipe having a wall thickness of 8 percent or more of the inside diameter.		QSTVWXYZ	100	100	0	
682(3)C Commodities not listed above, classified [ Lb. ] 278 [ ] under Schedule B Nos. 682.1100 through 682.2600. (Also specify 7-digit Schedule B No.)		SZ	—	—	—	
683(1)A Nickel based magnetic materials as de- [ Lb. ] 261 [ ] fined in § 399.2, Interpretation 6(a), unwrought, and bars, rods, angles, shapes, sections, wire, plates, sheets, strips, powders, flakes, foil, hollow bars, tubes, pipes, blanks, and fittings made therefrom. (Specify nickel content in pounds.)		QSTVWXYZ	500	100	0	P-8
683(2)A Nickel alloys, unwrought, containing 5 [ Lb. ] 261 [ ] percent or more boron, and bars, rods, angles, shapes, sections, wire, plates, sheets, strips, powders, flakes, foil, hollow bars, tubes, pipes, blanks, and fittings made therefrom. (Specify nickel content in pounds.)		QSTVWXYZ	500	100	0	P-8
683(3)A Nickel alloys, unwrought, and bars, rods, [ Lb. ] 261 [ ] angles, shapes, sections, wire, plates, sheets, strips, powders, flakes, foil, hollow bars, tubes, pipes, blanks, and fittings containing: (a) 50 percent or more niobium (columbium); (b) 60 percent or more niobium-tantalum in combination; (c) 60 percent or more tantalum; (d) magnesium with 0.4 percent or more zirconium, 1 percent or more rare earth metals (cerium misch metal), or 10 percent or more lithium; (e) 50 percent or more beryllium; (f) a higher percentage by weight of nickel than any other element and containing more than 1 percent thorium oxide; or (g) cobalt and 5 percent or more tantalum. (Specify nickel content in pounds.) <sup>2</sup>		QSTVWXYZ	500	100	0	P-8
683(4)A Bars, rods, angles, shapes, sections, plates, [ Lb. ] 261 [ ] sheets, strips, foil, hollow bars, tubes, pipes, blanks, and fittings of porous nickel metal with a mean pore size of 25 microns or less and a nickel purity con- tent of 99 percent or more, <i>except single porous nickel metal sheets not greater than 930 cm<sup>2</sup> (144 square inches)</i> <i>in size when intended for use in batteries for civilian application.</i>		QSTVWXYZ	0	0	0	R
* 683(5)B Other bars, rods, angles, shapes, sections, [ Lb. ] 262 [ ] plates, sheets, strips, foil, hollow bars, tubes, pipes, blanks, and fittings of porous nickel having a purity of 99 percent or more.		QSTVWXYZ	0	0	0	R
* 683(6)B Pressure tubes and pipe fittings containing [ Lb. ] 262 [ ] 32 percent or more nickel, having a tube or pipe size connection of 8 inches or more inside diameter, for tube or pipe having a wall thickness of 8 percent or more of the inside diameter.		QSTVWXYZ	100	100	0	
683(7)A Nickel powder with a nickel content of [ Lb. ] 261 [ ] 99 percent or more and a particle size of less than 100 microns. (Specify nickel content and particle size.)		QSTVWXYZ	100	100	0	P-7

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> A validated license is also required for export of silver leaf to East Germany.

<sup>3</sup> See § 370.10(e) for commodities which require export authorization from the U. S. Atomic Energy Commission.

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Validated Licenses Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			Special Provisions List
			T	V	X	
* 683(8)B Nickel powder with a nickel content of [ Lb. 99 percent or more and a particle size of 100 microns or over. (Specify nickel content and particle size.)	[ 262 [ QSTVWXYZ	[ 500 [ 500 [ 0 [ P-7				
* 683(9)J Other nickel powder with a nickel content of less than 99 percent and a particle size of 100 microns or over. (Specify nickel content and particle size.)	[ 268 [ QSWXYZ	[ — [ — [ 100 [				
683(10)A Nickel alloy electroplating anodes containing (a) 5 percent or more boron, or (b) a higher percentage by weight of nickel than any other element and containing more than 1 percent thorium oxide. (Specify nickel content in pounds.) <sup>1</sup>	[ 261 [ QSTVWXYZ	[ 500 [ 100 [ 0 [ P-8				
* 683(11)J Other nickel or nickel alloys, wrought or unwrought, as defined in § 399.2, Interpretation 6(b), 33, or 34. (Specify nickel content and complete metal analysis.)	[ 268 [ QSWXYZ	[ — [ — [ 100 [				
683(12)G Other nickel or nickel alloys, wrought or unwrought, not listed above, classified under Schedule B Nos. 683.1000 through 683.2400. (Specify by name.) (Also specify 7-digit Schedule B No.)	[ 268 [ SZ	[ — [ — [ — [				
684(1)A Aluminum alloy ingots and other unwrought forms, and aluminum alloy bars, rods, angles, shapes, sections, bare wire, plates, sheets, foil, leaf, powder, flakes, tubes, pipes, tube blooms, and tube and pipe fittings, containing 5 percent or more boron.	[ 261 [ QSTVWXYZ	[ 500 [ 100 [ 0 [ P-8				
* 684(2)F Other aluminum or aluminum alloy powder and flakes. <sup>2</sup>	[ 268 [ SYZ	[ — [ — [ — [				
684(3)G Commodities not listed above, classified under Schedule B Nos. 684.0110 through 684.2600. (Specify by name.) (Also specify 7-digit Schedule B No.)	[ 268 [ SZ	[ — [ — [ — [				
685(1)G Lead or lead alloys, unwrought or wrought.	[ 268 [ SZ	[ — [ — [ — [				
686(1)G Zinc or zinc alloys, unwrought or wrought.	[ 268 [ SZ	[ — [ — [ — [				
687(1)G Tin or tin alloys, unwrought or wrought.	[ 268 [ SZ	[ — [ — [ — [				
6893(1)A Magnesium base alloys, unwrought or wrought, containing: (a) 0.4 percent or more zirconium, (b) 1 percent or more rare earth metals (cerium misch metal), (c) 10 percent or more lithium, or (d) 5 percent or more boron. <sup>3</sup>	[ 261 [ QSTVWXYZ	[ 500 [ 100 [ 0 [ P-7				
* 6893(2)F Other magnesium or magnesium alloys, unwrought or wrought.	[ 268 [ SYZ	[ — [ — [ — [				
6893(3)A Beryllium fibrous and filamentary materials as defined in § 399.2, Interpretation 23. <sup>4</sup>	[ 321 [ QSTVWXYZ	[ 500 [ 100 [ 0 [				
6893(4)A Beryllium metal or beryllium alloys containing more than 50 percent beryllium by weight, wrought or unwrought, and waste and scrap. (Specify by name.) <sup>5</sup>	[ 261 [ QSTVWXYZ	[ 500 [ 500 [ 0 [ P-8				
6894(1)A Tungsten metal, press-sintered, crude and semi-fabricated forms, as follows: (a) weighing over 20 pounds, except wire and sheet; and (b) porous (including forms partially or completely infiltrated with other metals), weighing over 15 pounds before infiltration or over 20 pounds after infiltration. <sup>6</sup>	[ 261 [ QSTVWXYZ	[ 500 [ 100 [ 0 [ P-8				

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See § 370.10(a) for commodities which require export authorization from the U. S. Atomic Energy Commission.

<sup>3</sup> Aluminum powder smaller than 20 micron average diameter and of purity in excess of 97 percent requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>4</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>5</sup> See § 399.2, Interpretations 10 and 12.

<sup>6</sup> "Porous" means density prior to infiltration of between 13.5 and 14.4 gms/cc. Infiltrated tungsten includes porous forms partially or completely infiltrated with other metals such as copper, magnesium, silver, tin and/or zinc, and does not include tungsten alloys.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing * Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Licenses List
				T	V	X	
6894(2)A Molybdenum fibrous and filamentary materials as defined in § 399.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	100	0	
6894(3)A Molybdenum metal containing more than 99.5 percent molybdenum, and molybdenum alloys containing 95 percent or more molybdenum, wrought or unwrought, <i>except wire</i> .	Lb.	261	QSTVWXYZ	500	100	0	P-8
6894(4)A Tantalum metal or tantalum metal alloys containing 60 percent or more tantalum, wrought or unwrought, and waste and scrap. (Specify by name.) <sup>2</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 6894(5)J Other tantalum metal alloys, wrought or unwrought, and waste and scrap. (Specify by name.) <sup>2</sup>	Lb.	268	QSWXYZ	—	—	100	
* 6894(6)D Other molybdenum or molybdenum alloys, wrought or unwrought, and waste and scrap. (Specify by name.)	Lb.	268	SWXYZ	—	—	100	
6894(7)C Other tungsten or tungsten alloys, wrought or unwrought, and waste and scrap. <sup>3</sup>	Lb.	268	SZ	—	—	—	
6895(1)A Dendritic forms of any semiconductor material, or combinations thereof, suitable for use in diodes or transistors. (See § 399.2, Interpretation 21.)	Lb.	261	QSTVWXYZ	500	0	0	P-8
6895(2)A Bismuth or cobalt based magnetic materials as defined in § 399.2, Interpretation 6(a), wrought or unwrought, and waste and scrap.	Lb.	261	QSTVWXYZ	500	100	0	P-8
6895(3)A Boron or titanium fibrous and filamentary materials as defined in § 399.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	100	0	
6895(4)A Boron element (metal), wrought; and boron alloys containing 5 percent or more boron, wrought or unwrought.	Lb.	221	QSTVWXYZ	50	50	0	
6895(5)A Calcium metal containing less than one hundredth (0.01) percent by weight of impurities other than magnesium and less than 10 parts per million of boron, wrought.	Lb.	261	QSTVWXYZ	100	100	0	
6895(6)A Cobalt based alloys containing a higher percentage by weight of cobalt than any other element and containing 5 percent or more tantalum.	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 6895(7)J Other cobalt or cobalt alloys, wrought or unwrought, and waste and scrap, as defined in § 399.2, Interpretation 6(b) or 34.	Lb.	268	QSWXYZ	—	—	100	
6895(8)A Niobium (columbium) metal and niobium alloys containing 50 percent or more niobium, or 60 percent or more niobium-tantalum in combination, wrought or unwrought, and waste and scrap. (Specify by name.) <sup>2</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 6895(9)B Gallium metal powders; and gallium metal, alloys, and amalgams.	Lb.	262	QSTVWXYZ	100	100	0	P-7

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> See § 399.2, Interpretations 10 and 12.

<sup>4</sup> See § 370.10(e) for commodities which require export authorization from the U. S. Atomic Energy Commission.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Freezing Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
6895(10)A Hafnium metal and alloys containing [ Lb. more than 16 percent hafnium by weight. (Specify hafnium content.)	[ 261	[ QSTVWXYZ	[ 100	[ 100	[ 0		
*6895(11)B Monocrystalline indium in any form... [ Lb.	[ 242	[ QSTVWXYZ	[ 500	[ 0	[ 0	P-7	
6895(12)A Lithium metal, wrought; and lithium alloys containing 50 percent or more lithium, wrought or unwrought.	[ 241	[ QSTVWXYZ	[ 100	[ 100	[ 0	P-7	
* 6895(13)B Other lithium alloys, wrought or unwrought.	[ 222	[ QSTVWXYZ	[ 500	[ 100	[ 0	P-7	
* 6895(14)B Rhenium metal and rhenium metal alloys, wrought or unwrought.	[ 262	[ QSTVWXYZ	[ 100	[ 100	[ 0	P-7	
6895(15)A Silicon, purity 99.99 percent or higher, and monocrystalline silicon, wrought.	[ 241	[ QSTVWXYZ	[ 500	[ 0	[ 0		
6895(16)A Titanium metal and titanium alloys containing 70 percent or more titanium, wrought or unwrought, including intermediate mill shapes, and waste and scrap. (Specify by name.) <sup>1</sup>	[ 261	[ QSTVWXYZ	[ 500	[ 100	[ 0	P-8	
* 6895(17)B Yttrium metal, wrought; and yttrium alloys, wrought or unwrought.	[ 242	[ QSTVWXYZ	[ 500	[ 0	[ 0		
6895(18)A Zirconium metal and zirconium alloys containing more than 50 percent zirconium in which the ratio of hafnium content to zirconium content is less than one part to 500 parts by weight, wrought or unwrought, and waste and scrap. (Specify by name.) <sup>1</sup>	[ 261	[ QSTVWXYZ	[ 500	[ 500	[ 0		
6895(19)G Base metals and alloys, n.e.c., wrought or unwrought, and waste and scrap, as follows: (a) antimony, (b) bismuth, (c) chromium, (d) other cobalt, (e) germanium, (f) manganese, <i>except electrolytic manganese metal</i> , (g) other niobium (columbium), (h) thermo bimetal, thermometal, and thermostatic metal, (i) other titanium; and (j) other zirconium. <sup>1</sup>	[ 268	[ SZ	[ —	[ —	[ —		
* 6895(20)F Other base metals and alloys, n.e.c., wrought or unwrought, and waste and scrap. <sup>1</sup>	[ 268	[ SYZ	[ —	[ —	[ —		

## MANUFACTURES OF METAL, N.E.C.

* 691(1)D Iron and steel bridges; and parts . . . . .	[ 268	[ SWXYZ	[ —	[ —	[ 100		
* 691(2)B Bonded, brazed, or welded structural sandwich constructions, including cores, face sheets, and attachment materials, manufactured in whole or in part from precipitation hardened stainless steel.	[ 262	[ QSTVWXYZ	[ 500	[ 100	[ 0		
691(3)C <sup>1</sup> Other finished structures and structural parts, n.e.c., iron, steel, aluminum, or zinc.	[ 268	[ SZ <sup>2</sup>	[ —	[ —	[ —		
692(1)A Metal containers, filled or unfilled, jacketed only, for the storage or transportation of liquefied gases at temperatures below minus 274° F. (minus 170° C.), including mobile units, specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation and (1) having a fixed storage capacity of 500 tons or more, or (2) having a mobile capacity exceeding 1,200 gallons (4,542 liters) and an evaporation loss rate of less than 1.5 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight; or (c) liquefied gases boiling at temperatures below minus 328° F. (minus 200° C.), with (i) multi-laminar type	[ 211	[ QSTVWXYZ	[ 500	[ 100	[ 0	P-8	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.<sup>2</sup> See § 399.2, Interpretations 10 and 12.<sup>3</sup> See § 399.3, Interpretation 22(b), for commodities requiring a validated license for export to East Germany.

CCL-30

692(1)—6986(1)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Quantity or Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
insulation under vacuum, or (ii) other types of insulation, having a liquid capacity of more than 250 gallons (946 liters) and an evaporation loss rate of less than 8 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight. <sup>1,2</sup>							
692(2)G <sup>3</sup> Other metal containers for storage and transport. <sup>3</sup>		218	SZ <sup>3</sup>	—	—	—	
* 693(1)D Wire cable, rope, strand, and cord, stainless steel, suitable for aircraft.	Lb.	268	SWXYZ	—	—	100	
693(2)G Commodities not listed above, classified under Schedule B Nos. 693.1100 through 693.4000. (Also specify 7-digit Schedule B No. <sup>4</sup> )		268	SZ	—	—	—	
694(1)G Nails, screws, nuts, bolts, rivets, and similar articles, iron, steel, or copper.	Lb.	268	SZ	—	—	—	
695(1)A Broaching tools and drills specially designed for production of arms, munitions, and implements of war, including but not limited to gun barrel rifling broaches and small arms deep-hole drills; and specially designed parts, n.e.c. (Specify type and model of tool.) <sup>5</sup>		421	QSTVWXYZ	500	500	0	
* 695(2)J Rock drill bits and core bits, including hole openers, having cones or sections which rotate freely and independently of the rotation of the body of the bit; and specially designed parts, n.e.c.		408	QSWXYZ	—	—	100	
695(3)G <sup>3</sup> Commodities not listed above, classified under Schedule B Nos. 695.1010 through 695.2600. (Also specify 7-digit Schedule B No.)		218	SZ <sup>3</sup>	—	—	—	
696(1)G <sup>3</sup> Commodities classified under Schedule B Nos. 696.0310 through 696.0935.		218	SZ <sup>3</sup>	—	—	—	
697(1)G <sup>3</sup> Commodities classified under Schedule B Nos. 697.1010 through 697.9300.		218	SZ <sup>3</sup>	—	—	—	
6981(1)G <sup>3</sup> Commodities classified under Schedule B Nos. 698.1110 through 698.1280.		218	SZ <sup>3</sup>	—	—	—	
6982(1)G Safes, with or without interior fittings; vault doors; interior equipment for vaults; strong rooms and fittings; strong boxes; and parts, n.e.c.		218	SZ	—	—	—	
6983(1)G <sup>3</sup> Commodities classified under Schedule B Nos. 698.3010 through 698.3040.	Lb.	218	SZ <sup>3</sup>	—	—	—	
6984(1)G <sup>3</sup> Anchors and grapnels, iron or steel, and parts, n.e.c.	Lb.	218	SZ <sup>3</sup>	—	—	—	
6985(1)G <sup>3</sup> Commodities classified under Schedule B Nos. 698.5100 through 698.5300.		218	SZ <sup>3</sup>	—	—	—	
6986(1)G <sup>3</sup> Springs of iron, steel, or copper	Lb.	218	SZ <sup>3</sup>	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> A jacketed container is a thermos type container that has more than one wall and is insulated by a vacuum or by insulation material.

<sup>3</sup> Report contents of cylinder or container under appropriate Export Control Commodity Number.

<sup>4</sup> See § 399.2, Interpretation 32(b), for commodities requiring a validated license for export to East Germany.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> Electric conducting cable suitable for sweeping magnetic mines or for harbor defense, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 1 to Part 370.

<sup>7</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

<sup>8</sup> Report tools, drills, dies, bits, and reamers in "number."

<sup>9</sup> A validated license is also required for export of these commodities to East Germany.

Commodity Control List—399.1

6988(1)—6988(14)

OCL-81

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shows Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
6988(1)A Welding rods and wires, alloy steel, special types Class 1. <sup>1</sup>	Lb.	261	QSTVWXYZ	500	500	0	P-8
* 6988(2)J Welding rods and wires, alloy steel, special types Class 2. <sup>2</sup>	Lb.	268	QSWXYZ	—	—	100	
6988(3)A Cobalt alloy welding rods, wires, and electrodes, including brazing rods, containing a higher percentage by weight of cobalt than any other element and containing 5 percent or more tantalum.	Lb.	261	QSTVWXYZ	500	100	0	
* 6988(4)J Other cobalt or cobalt alloy welding rods, wires, and electrodes, including brazing rods, as defined in § 899.2, Interpretation 34.	Lb.	268	QSWXYZ	—	—	100	
6988(5)A Magnesium alloy welding rods, wires, and electrodes, including brazing rods, containing: (a) 0.4 percent or more zirconium, (b) 1 percent or more of rare earth metals (cerium misch metal), or (c) 10 percent or more lithium. (Specify by name.)	Lb.	261	QSTVWXYZ	500	100	0	P-8
6988(6)A Welding rods and electrodes, including brazing rods, as follows: (a) molybdenum containing more than 99.5 percent molybdenum, and (b) molybdenum alloy containing 95 percent or more molybdenum. (Specify by name.)	Lb.	261	QSTVWXYZ	500	500	0	P-8
6988(7)A Nickel alloy welding and soldering rods, wires, tubes, plates, and electrodes, including brazing rods, containing a higher percentage by weight of nickel than any other element and containing more than 1 percent thorium oxide.	Lb.	261	QSTVWXYZ	500	100	0	
* 6988(8)J Other nickel or nickel alloy welding and soldering rods, wires, tubes, plates, and electrodes, including brazing rods, as defined in § 899.2, Interpretation 38.	Lb.	268	QSWXYZ	—	—	100	
6988(9)A Niobium (columbium) or niobium alloy welding rods, wires, and electrodes, including brazing rods, containing 50 percent or more niobium or 60 percent or more niobium-tantalum in combination.	Lb.	261	QSTVWXYZ	500	500	0	P-8
6988(10)A Tantalum metal or tantalum alloy welding rods, wires, and electrodes, including brazing rods, containing 60 percent or more tantalum. (Specify by name.)	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 6988(11)J Other tantalum alloy welding rods, wires, and electrodes, including brazing rods. (Specify by name.)	Lb.	268	QSWXYZ	—	—	100	
6988(12)A Titanium or titanium alloy welding rods and wires containing 70 percent or more titanium.	Lb.	261	QSTVWXYZ	500	100	0	P-8
6988(13)A Zirconium or zirconium alloy welding rods and wires containing more than 50 percent zirconium in which the ratio of hafnium content to zirconium content is less than one part to 500 parts by weight.	Lb.	261	QSTVWXYZ	500	500	0	P-8
* 6988(14)F Flexible tubing and piping of base metal.	Lb.	218	SYZ	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Specify recognized designation (AISI, SAE, NE number, etc.), or percentage of each alloying element.

<sup>3</sup> For definitions of "special types" of alloy steel, see § 899.2, Interpretations 3 and 9.

Export Control Regulations

June 1, 1972

OCL-32

6988(15)—6989(12)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
6988(15)C' Commodities listed in § 399.2, Inter-pretation 32(a).	Lb.	268	SZ'	—	—	—	
* 6988(16)E Commodities not listed above, classified under Schedule B Nos. 698.8110 through 698.8740. (Also specify 7-digit Schedule B No.)	Lb.	268	XYZ	—	—	100	
6989(1)A Iron whiskers as defined in § 399.2, Interpretation 23. <sup>1</sup>	Lb.	221	QSTVWXYZ	500	100	0	
6989(2)A Containers, iron or steel, jacketed only, for the storage of liquefied gases at temperatures below minus 274° F. (minus 170° C.), specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon, and with multi-laminar type insulation under vacuum; or (c) liquefied gases boiling at temperatures below minus 328° F. (minus 200° C.) with multi-laminar type insulation under vacuum. <sup>2</sup>	Lb.	211	QSTVWXYZ	500	100	0	P-3
6989(3)A Articles, n.e.c., of magnetic materials as defined in § 399.2, Interpretation 6(a).	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 6989(4)J Other articles, n.e.c., of cold rolled, grain oriented, electrical steel with a thickness of 0.006 inch or less.	Lb.	268	QSWXYZ	—	—	100	
6989(5)A Articles designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 200 MHz.	Lb.	601	QSTVWXYZ	500	500	0	
* 6989(6)B Aircraft land mats	Lb.	212	QSTVWXYZ	500	500	0	
* 6989(7)J Articles of iron or steel, as follows: body armor; cutting electrodes, ceramic-covered, for underwater operations; other single crystals of iron; and submarine cable protectors. <sup>3</sup>	Lb.	218	QSWXYZ	—	—	100	
6989(8)A Castings and forgings of nonferrous base metals containing 5 percent or more boron.	Lb.	261	QSTVWXYZ	500	100	—	P-3
6989(9)A Beryllium or beryllium alloys, as follows: (a) castings and forgings containing more than 50 percent beryllium, and (b) articles, n.e.c., wholly made of beryllium. (Specify by name.)	Lb.	261	QSTVWXYZ	500	500	0	P-3
6989(10)A Castings and forgings, as follows: (a) hafnium metal or hafnium alloy containing more than 15 percent hafnium by weight, and (b) calcium metal containing less than one hundredth (0.01) percent by weight of impurities other than magnesium and less than 10 parts per million of boron. (Specify by name and content.)	Lb.	261	QSTVWXYZ	100	100	0	P-7
6989(11)A Castings and forgings, as follows: (a) magnesium alloy containing 0.4 percent or more zirconium, 1 percent or more of rare earth metals (cerium misch metal), or 10 percent or more lithium, (b) molybdenum containing more than 99.5 percent molybdenum or molybdenum alloy containing 95 percent or more molybdenum, (c) cobalt alloy containing a higher percentage by weight of cobalt than any other element and containing 5 percent or more tantalum, (d) tantalum metal or tantalum alloy containing 60 percent or more tantalum, or (e) titanium metal or titanium alloy containing 70 percent or more titanium. (Specify by name.)	Lb.	261	QSTVWXYZ	500	100	0	P-3
* 6989(12)B Gallium or gallium alloy castings and forgings, except of electronic grades containing less than 1 percent gallium.	Lb.	262	QSTVWXYZ	100	100	0	P-7

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See § 399.2, Interpretation 32(b), for commodities requiring a validated license for export to East Germany.

<sup>3</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> A jacketed container is a thermos type container that has more than one wall and is insulated by a vacuum or by insulation material.

<sup>5</sup> Submarine and torpedo nets, military armored vests, and military helmet liners, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

Commodity Control List—399.1

6989(13)—6989(26)

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Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Prescribing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
6989(13)A Lithium or lithium alloy castings and forgings containing 50 percent or more lithium.	Lb.	241	QSTVWXYZ	100	100	0	P-8
* 6989(14)B Other lithium alloy castings and forgings; and yttrium or yttrium alloy castings and forgings.	Lb.	242	QSTVWXYZ	500	0	0	P-8
6989(15)A Nickel alloy castings and forgings containing a higher percentage by weight of nickel than any other element and containing more than 1 percent thorium oxide.	Lb.	261	QSTVWXYZ	500	100	0	
6989(16)A Niobium (columbium) or niobium alloy castings, forgings, wire, and cable containing 50 percent or more niobium, or 60 percent or more niobium-tantalum in combination. (Specify by name.)	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 6989(17)J Other tantalum alloy castings and forgings.	Lb.	268	QSWXYZ	—	—	100	
* 6989(18)J Other cobalt or nickel alloy castings and forgings, as defined in § 399.2, Interpretation 6(b), 33, or 34. (Specify by name.)	Lb.	268	QSWXYZ	—	—	100	
6989(19)A Tungsten metal, press-sintered, castings and forgings, as follows: (a) weighing over 20 pounds; and (b) porous (including porous forms partially or completely infiltrated with other metals), weighing over 15 pounds before infiltration or over 20 pounds after infiltration. <sup>1, 2</sup>	Lb.	261	QSTVWXYZ	500	100	0	P-8
6989(20)A Castings, forgings, and other articles, n.e.c., wholly made of zirconium metal or zirconium alloys containing more than 50 percent zirconium by weight in which the ratio of hafnium content to zirconium content is less than one part to 500 parts by weight. (Specify by name.)	Lb.	261	QSTVWXYZ	500	500	0	P-8
6989(21)A Polycrystalline silicon, purity 99.99 percent or higher; and monocrystalline silicon.	Lb.	241	QSTVWXYZ	500	0	0	P-7
* 6989(22)D Polycrystalline silicon, purity 99.9 percent up to but not including 99.99 percent.	Lb.	248	SWXYZ	—	—	100	
6989(23)A Thermoelectric materials with a maximum product of the figure of merit (Z) and the temperature (T in °K) in excess of 0.75. <sup>3</sup>		601	QSTVWXYZ	100	100	0	
6989(24)A Electrical components and conductors, n.e.c., specially designed for operation at ambient temperatures below minus 170° C.		261	QSTVWXYZ	500	0	0	P-8
* 6989(25)B Wire mesh, all types, including electroformed, containing 95 percent or more nickel, with 60 or more wires per linear centimeter or the equivalent thereof.	Lb.	212	QSTVWXYZ	500	500	0	P-8
* 6989(26)B Bonded, brazed, or welded structural sandwich constructions, including cores, face sheets, and attachment materials, manufactured in whole or in part from beryllium, molybdenum, niobium (columbium), tantalum, titanium, tungsten, and their alloys, or any combination of such materials.	Lb.	262	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> "Porous" means density prior to infiltration of between 13.5 and 15.4 gms/cc. Infiltrated tungsten includes porous forms partially or completely infiltrated with other metals such as copper, magnesium, silver, tin and/or zinc, and does not include tungsten alloys.

<sup>3</sup> See § 370.10(e) for material which requires export authorization from the U. S. Atomic Energy Commission.

<sup>4</sup> The figure of merit (Z) equals Seebeck coefficient squared, divided by the product of electrical resistivity and thermal conductivity.

Export Control Regulations

June 1, 1972

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Processing Number	* Validated License Required for Country Groups Shown Below	* CIV & Value Limits for Shipments to Country Groups			* Special Restrictions List
				T	V	X	
6989(27)C' Commodities listed in § 899.2, Inter-pretation 82(a).		218	SZ'	—	—	—	
* 6989(28)F Other nonferrous metal castings and forgings, n.e.c.	Lb.	268	SYZ	—	—	—	
* 6989(29)E Other articles of nonferrous metals, n.e.c.		218	SKYZ	—	—	100	

SECTION 7—MACHINERY AND TRANSPORT EQUIPMENT

MACHINERY, EXCEPT ELECTRIC<sup>a</sup>

- 711(1)A Water tube boilers, marine type, designed to have either of the following characteristics: (a) heat release rate (at maximum rating) equal to or in excess of 190,000 B.T.U. per hour per cubic foot of furnace volume, or (b) ratio of steam generated in pounds per hour (at maximum rating) to the dry weight of the boiler in pounds equal to or in excess of 0.83; and boiler superheaters, feedwater heaters, and economizers therefor; and specially designed parts, n.e.c. (Specify characteristics.)<sup>b</sup>
- \* 711(2)B Water tube boilers, marine type, designed to have a heat release rate (at maximum rating) equal to 180,000 B.T.U., up to but not including 190,000 B.T.U., per hour per cubic foot of furnace volume; and boiler superheaters, feedwater heaters, and economizers therefor; and parts, n.e.c. (Specify characteristics.)
- 711(3)A Heat exchangers and heat-exchanger type condensers specially designed for nuclear reactors; and specially designed parts and accessories, n.e.c.
- \* 711(4)B Tubular type heat exchangers designed to operate at pressures of 1,500 psi and above and with all flow contact surfaces made of or lined with 10 percent or more nickel and/or chromium; and parts and accessories, n.e.c. (Give full specifications.)
- \* 711(5)B Heat exchangers and heat-exchanger type condensers, tubular, designed for use in steam power generation and to operate at pressures of 800 psi and over and with all flow contact surfaces made of any of the following materials: aluminum, nickel, titanium, zirconium, or alloys containing 60 percent or more nickel, either separately or combined (specify pressure and type of metal); and parts and accessories, n.e.c.
- 711(6)B Steam turbines, whether or not incorporating boilers, designed for use of saturated steam for an output of 2,000 horsepower (1,500 kilowatts) up to and including 100,000 horsepower (75,000 kilowatts); and parts and accessories, n.e.c. (Specify horsepower or kilowatts.)
- \* 711(7)J Other marine steam turbines specially designed for naval use; and parts and accessories, n.e.c. (Specify horsepower or kilowatts.)
- 711(8)A Parts, n.e.c., wholly made of fluorocarbon polymers or copolymers as defined in § 899.2, Interpretation 22, specially designed for internal combustion engines and aircraft engines.<sup>c</sup>

<sup>a</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.  
<sup>b</sup> See § 899.2, Interpretation 23(b), for commodities requiring a validated license for export to East Germany.  
<sup>c</sup> Report unit for each commodity in accordance with Schedule B requirement.  
<sup>d</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.  
<sup>e</sup> See § 899.2, Interpretations 4 and 10, for commodity interpretation related to shipments of machinery.  
<sup>f</sup> For export control purposes "furnace volume" is the volume of the combustion chamber formed by refractory or tubular walls and floor, i.e., the inside dimension of the chamber; and "dry weight of the boiler" is the total weight of the boiler (excluding the air heaters) less the water required for steaming.  
<sup>g</sup> See Supplement No. 2 to Part 870 and § 899.2, Interpretation 20, for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
*711(9)B Jet assist take-off (JATO) units; and parts and accessories, n.e.c.		432	QSTVWXYZ	500	500	0	
711(10)A Aircraft engines, as follows: (a) jet engines of 5,000 pounds thrust or more, and (b) turbo-prop and turbo-shaft engines of 2,500 horsepower or more, or with a residual thrust of 1,000 pounds or more; and other specially designed parts and accessories, n.e.c. (Specify make, model, and pound thrust or horsepower.) <sup>2</sup>		431	QSTVWXYZ	1,000	1,000	0	
* 711(11)C Other jet, turbo-prop, turbo-shaft, and gas turbine aircraft engines; and other parts and automotive vehicles; and hydrojet propulsion units for watercraft; and parts and accessories, n.e.c. <sup>2</sup>		431	QSVWXYZ	—	1,000	0	P-2
711(12)A Diesel engines, as follows: (a) nonmagnetic, 50 brake horsepower and over, having a nonmagnetic content exceeding 75 percent of total weight, or having nonmagnetic parts other than crankcase, block, head, pistons, covers, and plates, valve facings, gaskets, and fuel, lubricant, and other supply lines; and (b) 1,500 brake horsepower and over, with rotary speeds of 700 r.p.m. and over, specially designed for use on submarines; and other specially designed parts and accessories, n.e.c. (Specify brake horsepower at rated r.p.m.) <sup>2</sup>		432	QSTVWXYZ	500	25	0	
* 711(13)B Diesel engines, nonmagnetic, 50 brake horsepower and over, having a nonmagnetic content exceeding 50 percent, up to but not exceeding 75 percent of total weight (specify brake horsepower at rated r.p.m.); and other parts and accessories, n.e.c.		432	QSTVWXYZ	500	25	0	
711(14)A Gas turbine engines for marine propulsion, whether designed as such, or adapted for such use from aero-engines; and specially designed parts, n.e.c.		431	QSTVWXYZ	1,000	1,000	0	
* 711(15)D Other engines, as follows: (a) diesel, 1,500 brake horsepower or over, with rotary speeds of 700 r.p.m. or over; and (b) gas turbine, 1,000 equivalent shaft horsepower or over, which have been in normal civil use for more than one year; and parts and accessories therefor, n.e.c. (Specify make, model, and horsepower at rated r.p.m.) <sup>2</sup>		438	SWXYZ	—	—	100	
* 711(16)E Other diesel engines; other gas turbine engines and gas turbines, n.e.c.; other internal combustion engines over 50 horsepower; outboard motors over 15 horsepower; engines for watercraft and automotive vehicles; and hydrojet propulsion units for watercraft; and parts and accessories, n.e.c. <sup>2</sup>		438	SXYZ	—	—	100	
711(17)A Parts and accessories specially designed for nuclear reactors. (Specify by name.) <sup>4</sup>		601	QSTVWXYZ	100	100	0	
* 711(18)D Sterling or Erickson cycle engines; and parts, n.e.c.		408	SWXYZ	—	—	100	
* 711(19)C Air starters and air turbines specially designed for aircraft; and parts, n.e.c.		432	QSVWXYZ	—	500	0	
* 711(20)E Hydraulic motors, except for aircraft; and parts, n.e.c.		428	SXYZ	—	—	100	
711(21)G Commodities not listed above, classified under Schedule B Nos. 711.1010 through 711.8900. (Also specify 7-digit Schedule B No.) <sup>4</sup>		408	SZ	—	—	—	

<sup>2</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report engines and motors in "number."

<sup>3</sup> See Supplement No. 2 to Part 370 and § 399.2, Interpretation 20, for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> Gas turbine engines, other than marine and aircraft, which have been in normal civil use for one year or less, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>5</sup> Export authorization from the U. S. Atomic Energy Commission is required for nuclear reactors, even when such export is to be made in multiple shipments, or when some of the parts are to be supplied by foreign sources. See § 370.10(e).

<sup>6</sup> Report unit for each commodity in accordance with Schedule B requirement.

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712(1)—714(4)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
712(1)A Military type tracklaying tractors; and military type contractors' off-highway wheel tractors. <sup>1</sup>		401	QSTVWXYZ	500	0	0	
712(2)C Commodities not listed above, classified under Schedule B Nos. 712.1005 through 712.9965. (Also specify 7-digit Schedule B No.)		208	SZ	—	—	—	
*714(1)D Electric typing devices capable of being connected to and operating over a wire communication circuit; and parts and accessories, n.e.c.		618	SWXYZ	—	—	100	
714(2)A Analog computers with one or more of the following characteristics: (a) with summers, inverters, or integrators with (i) static accuracy better than 0.02 percent, or (ii) total error at 1 KHz better than 0.15 percent; (b) with multipliers with (i) static accuracy better than 0.1 percent, or (ii) total error at 1 KHz better than 0.25 percent; (c) with fixed function generators (including Log X and sine/cosine, etc.) with static accuracy better than 0.1 percent; (d) more than 75 operational amplifiers; or (e) more than four integrator time scales switchable during one program; and specially designed parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.) <sup>4</sup>		621	QSTVWXYZ	500	500	0	R
714(2)A Other analog computers capable of accepting, processing, and putting out data in the form of one or more continuous variables and capable of incorporating a total of at least 20 summers, integrators, multipliers, or function generators with facilities for readily varying the interconnection of these components; and specially designed parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.) <sup>4</sup>		621	QSTVWXYZ	500	500	0	R
714(4)A Digital computers with one or more of the following characteristics: (a) the CPU implementing floating point operations by hardware; (b) the sum of either the "I/O bus rate" or the "total effective bit transfer rate," whichever is less, and the "CPU bus rate" exceeds 10.8 million bits per second; (c) the internal memory has a total connected capacity (excluding parity, word marker, and flag bits) of more than 0.8 million bits; (d) the computer is equipped with peripheral memory devices, as follows: (i) more than 12, or (ii) the "total effective bit transfer rate" (excluding data channels not equipped with peripheral memory units) exceeds 0.7 million bits per second, or (iii) any magnetic tape transport with: (1) more than 800 bits per inch per track, (2) more than 75 inches per second tape speed, (3) more than 9 tracks per ½ inch tape width, or (4) more than ½ inch tape width, or (iv) for peripheral memory devices other than magnetic tape transports: (1) total connected "net capacity" exceeds 8 million bits, or (2) "total number of accesses exceeds 120 per second; (e) the computer is equipped with "terminal devices" located remote from the "computer operating area," as follows: (i) the "total effective bit transfer rate" (excluding parity, word marker, and "flag bits") as limited by any communications channel exceeds 1,400 bits per second, or (ii) the "effective bit transfer rate" of any "terminal device" exceeds 1,200 bits per second; (f) the computer has interface equipment for which: (i) the "effective bit transfer rate" of any interfaced "communications channel" exceeds 200 bits per second; or (ii) any interfaced "communication channel" is not dedicated full time to the given application; (g) computers with cathode ray tube display units, as follows: (i) using alpha-numeric and similar data or information, excluding those displays for which circuitry and character-generation devices external to the tube limit displays to alpha-numeric characters in fixed formats or to graphs composed only of the same basic elements as used for alpha-numeric		621	QSTVWXYZ	500	500	0	R

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Possessing or built to current military specifications differing materially from normal commercial specifications.

<sup>3</sup> Off-highway vehicles are interpreted, for purposes of export control, to be those which, without modification by increase of standard tire size and/or spacing, have an overall width of over 98 inches, as measured from outside to outside of rear tires.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> Report machines in "number."

<sup>6</sup> Report computers in "number."

<sup>7</sup> Computers bearing a military designation, or designed or modified for use in airborne vehicles, missiles, or space vehicles, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	

character composition (this exclusion is limited to graphic displays for which the sequence of symbols and basic elements of symbols are fixed by the format and character generators in the unit and cannot be generated arbitrarily by the computer), or (ii) with light gun or other graphic input devices, excluding those which are parts of displays for which circuitry and character-generation devices external to the tube limit displays to alpha-numeric characters in fixed formats or to graphs composed only of the same basic elements as used for alpha-numeric character composition; and specially designed parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.)<sup>1</sup>

714(5)A Other digital computers, and statistical || .....<sup>2</sup> || 621 || QSTVWXYZ || 500 || 500 || 0 || R  
machines used in conjunction with punched cards

or tape (including auxiliary machines), operated by one or more common control units and capable of all of the following: (a) accepting, storing, processing, and producing an output in numerical or alphabetical form; (b) storing more than 512 numerical and/or alphabetical characters or having an internal memory of more than 2048 bits; (c) performing a stored sequence of operations that are modifiable by means other than a physical change in circuitry; and (d) selecting a sequence from a plurality of stored operations based upon data or an internally computed result; and specially designed parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.)<sup>3</sup>

714(6)A Other computers (for example, hybrid) || .....<sup>2</sup> || 621 || QSTVWXYZ || 500 || 500 || 0 || R  
capable of operating in both analog and digital

modes, and related equipment; and specially designed parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.)<sup>3</sup>

714(7)C Other analog or digital computers, n.e.c.; || .....<sup>2</sup> || 628 || SZ || — || — || — ||  
and parts and accessories, n.e.c. (Specify name, model number, and systems characteristics. Also see § 376.10.)<sup>3</sup>

714(8)A Machines specially designed for use with || .....<sup>2</sup> || 621 || QSTVWXYZ || 500 || 100 || 0 ||  
electronic computers; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)<sup>4</sup>

714(9)A Magnetic recording and/or reproducing || .....<sup>2</sup> || 621 || QSTVWXYZ || 500 || 250 || 0 ||  
equipment specially designed for electronic computers; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) [Report magnetic tape and other magnetic recording media in No. 891.]<sup>4</sup>

714(10)A Input/output devices and other periph- || .....<sup>2</sup> || 621 || QSTVWXYZ || 500 || 500 || 0 ||  
eral equipment for electronic computers, including terminal devices capable of being remotely interfaced with computers; and specially designed parts and accessories, n.e.c. (Specify by name and model number. Also see § 376.10.)<sup>4</sup>

714(11)C Commodities not listed above, classified || .....<sup>2</sup> || 218 || SZ || — || — || — ||  
under Schedule B Nos. 714.1010 through 714.9295. (Also specify 7-digit Schedule B No.)<sup>4</sup>

Machines and machine tools for working metals [Report parts in No. 7195]:

71510(1)A Machine tools incorporating Laser, || No. || 421 || QSTVWXYZ || 500 || 500 || 0 ||  
Maser, or Iraser devices. [Report Lasers, Masers, or Irasers exported as replacements or accessories in No. 7299.]

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> Computers bearing a military designation, or designed or modified for use in airborne vehicles, missiles, or space vehicles, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.  
<sup>3</sup> Report computers and machines in "number."  
<sup>4</sup> Report machines in "number."  
<sup>5</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U.S. Department of State.  
<sup>6</sup> Report recording and/or reproducing equipment in "number."  
<sup>7</sup> Report devices and peripheral equipment in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Prohibitive Number	Validated Licenses Required for Country Groups Shown Below	GLV \$ Value Limits for Shipments to Country Groups			Special Restrictions
				T	V	X	
71510(2)A Metalcutting machine tools and other machine tools for the working of metals, specially designed for the manufacture of arms, munitions, and implements of war, including but not limited to the following: (a) armor plate drilling machines; (b) armor plate planing machines; (c) armor plate quenching presses; (d) gun barrel rifling and broaching machines; (e) gun barrel rifling machines; (f) gun barrel trepanning machines; (g) gun boring and turning machines; (h) gun honing machines of 6 foot stroke or more; (i) gun jump screw lathes; (j) gun rifling machines; (k) gun straightening presses; (l) small arms chambering machines; (m) small arms deep hole drilling machines; (n) small arms machines for rifle groove or bore; (o) small arms rifling machines; (p) small arms spill boring machines; (q) tank turret bearing grinding machines; and (r) combination lathes, drilling, and milling machines designed for mobile military workshops or for naval craft. (Specify type of machine). <sup>1</sup>	No.	421	QSTVWXYZ	500	500	0	
71510(3)A Tracer controlled machine tools, as follows: (a) milling and boring machines with an accuracy of plus or minus 0.001 inch (0.025 mm.) and a repeatability of 0.0005 inch (0.0125 mm.) or better; and (b) lathes with an accuracy of plus or minus 0.0004 inch (0.01 mm.) and a repeatability of plus or minus 0.0002 inch (0.005 mm.) or better.	No.	421	QSTVWXYZ	500	500	0	
71510(4)A Jig boring and/or jig grinding machines with accuracies better than plus or minus 0.00012 inches (0.003 mm.). (Specify type of machine.)	No.	421	QSTVWXYZ	500	500	0	
71510(5)A Gear making and/or finishing machinery, as follows: (a) gear grinding machines, generating type, capable of accepting gear blanks of 36 inches (914 mm.) work diameter or more, (b) gear grinding machines, generating type, designed to grind gears to a face-width of 7 inches (177 mm.) or more, for the production of helical or herring-bone gears, or (c) machinery capable of the production of gears of a module finer than 0.5 mm. (diametral pitch finer than 48) and meeting a quality standard better than AGMA 10 or equivalent. (See § 399.2, Interpretation 3.) <sup>2</sup>	No.	421	QSTVWXYZ	500	500	0	
71510(6)A Machines specially designed for making gas turbine blades, including but not limited to the following: blade belt grinding machines, blade edge radiusing machines, blade aerofoil milling and/or grinding machines, blade fillet radiusing and/or platform forming machines, blade root milling machines, blade blank preforming machines, blade rolling machines, blade aerofoil shaping machines, blade root grinding machines, and blade aerofoil scribing machines.	No.	421	QSTVWXYZ	500	500	0	
71510(7)A Internal grinding machines specially designed for the utilization of one or more spindle heads capable of speeds in excess of 120,000 r.p.m., except machines capable of use with hand-held tools only.	No.	421	QSTVWXYZ	500	500	0	
71510(8)A Machines specially designed for the manufacture of jet engines, as follows: (a) jet engine compressor case boring machines, (b) jet engine compressor or turbine disc turning machines, and (c) jet engine rotor grinders.	No.	421	QSTVWXYZ	500	500	0	
71510(9)A Machinery for use in the manufacture of aircraft, as follows: (a) specially designed for the working or forming of aircraft sheet, plate, or extrusion, or (b) specially designed for the milling of aircraft skin.	No.	421	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

<sup>3</sup> Export authorization is required from the U. S. Department of State for projectiles and ammunition production equipment. See Supplement No. 2 to Part 370.

<sup>4</sup> If machine is rated in DIN or Admiralty standards and not rated in AGMA, DIN 58405 or Admiralty Class II shall be considered to be the equivalent of AGMA 10.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Precedence Number	* Validated License Required for Country Groups Shown Below	* GLV \$ Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
71510(10)A Machine tools designed for or equipped with numerical control systems specially designed for controlling coordinated simultaneous (contouring and continuous path) machining movements in a machine tool in two or more axes. (See § 399.2, Interpretation 7.)		[ 421 ]	QSTVWXYZ	500	500	0	
* 71510(11)B Other machine tools designed for or equipped with electronic closed loop control systems designed solely for positioning operations. (See § 399.2, Interpretation 7.)		[ 422 ]	QSTVWXYZ	500	500	0	
71510(12)A Presses, as follows: (a) stabilized equipment using rams, for applying high impact energy work forces through use of explosives or compressed gases, including air, (b) presses specially designed or re-designed for the working or forming of metals, alloys, or other materials with a melting point exceeding 1900° C., (c) vertical hydraulic presses with total rated forces over 10,000 tons, and (d) horizontal hydraulic presses having a total rated force of over 5,000 tons. (Specify model and rated tonnage capacity.)		[ 431 ]	QSTVWXYZ	500	500	0	
71510(13)A Spin-forming machines with drive motors of 50 horsepower or over. <sup>1</sup>		[ 421 ]	QSTVWXYZ	500	500	0	
71510(14)A Electron beam machines (including equipment utilizing the stimulated electromagnetic radiation technique, such as Lasers, Masers, and Iasers), <i>except equipment using the "sparking" technique.</i>		[ 411 ]	QSTVWXYZ	500	500	0	
71510(15)C Portable pipe bending machines; metal-polishing and buffing machines, manually operated bench and floor types; post type horizontal boring-drilling-milling machines (code 3411.11); folding-arm type radial drilling machines (code 3413.225); pipe perforating type drilling machines, n.e.c.; crankshaft (code 3415.1852) and roll (code 3415.1147) types of external cylindrical grinding machines; drawbench (code 3422.52), file grinder, knife and shear grinders (code 3415.7511), saw grinder (code 3415.77), and sharpener types of tool and cutter grinding machines; jewelers and watchmakers (code 3416.14) types of engine lathes; brake drum, car wheel, car wheel axle, non-automatic chucking (code 3416.5510), and non-automatic crankshaft turning (code 3416.9231) types of lathes, n.e.c.; pipe perforating and spline (code 3414.1182) types of milling machines, n.e.c.; chamfering and sheet types of surface grinding machines; and crank type planers, <i>except gear planers.</i> <sup>2</sup>		[ 428 ]	SZ	—	—	—	
* 71510(16)E Bonding machines for applying fins on tubing; axle straighteners; single-spindle automatic chucking lathes; and single-spindle between-center lathes.		[ 428 ]	SKYZ	—	—	100	
* 71510(17)D Other metalcutting and metalworking machines and machine tools. (Specify type machine.) <sup>3</sup>		[ 428 ]	SWXYZ	—	—	100	
7152(1)A Foundry equipment specially designed for the manufacture of arms, munitions, and implements of war, <i>including but not limited to the following:</i> (a) artillery casting machines, and (b) centrifugal casting machines capable of casting tubes 6 feet or more in length with a wall thickness of 2 inches and over; and specially designed parts, n.e.c. (Specify by name.) <sup>4</sup>		[ 421 ]	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Spin-forming machines are those which form hot or cold metal by the action of spinning or rotary motion. Examples of spin-forming machines are: Appel, Flotz, Hydrospin, Rollform, Roll, Shear-form, Spin forging, and Slick mill types.

<sup>3</sup> The code number indicated after each type machine is assigned by the Defense Supply Agency, Department of Defense, to identify specific industrial plant equipment. The machine nomenclatures and plant equipment codes are listed in the Industrial Plant Equipment Handbooks published by the U. S. Department of Defense, Defense Supply Agency, Cameron Station, Alexandria, Virginia 22314. Where such code number is shown for a particular machine, only the specific types of machines described under the Industrial Plant Equipment Handbook Code number are included in this entry.

<sup>4</sup> Export authorization is required from the U. S. Department of State for projectile and ammunition production equipment. See Supplement No. 2 to Part 870.

<sup>5</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 870.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 7152(2)E Bessemer converters, open hearth converters, and other metallurgical converters and parts, n.e.c.		428	XYZ	—	—	100	
7152(3)A Metal rolling mills with work rolls supported by multiple back-up rolls or bearings (for example, Sazimir cold mills); and specially designed parts and accessories. <sup>1</sup>		421	QSTVWXYZ	500	500	0	
7152(4)A Metal rolling mills (all types) specially designed or redesigned for rolling of metals and alloys with a melting point exceeding 3420° F. (1900° C.); and specially designed parts and accessories. <sup>1</sup>		421	QSTVWXYZ	500	500	0	
7152(5)A Metal rolling mills, sheet, plate, strip, or foil, except aluminum foil mills, more than 3 rolls high (including dual purpose mills for 2 or 4 high operation), which achieve special lateral and/or longitudinal contour control by one or more of the following methods or means: (a) having work rolls with a ratio of roll face length to diameter exceeding 6:1 with roll face length up to and including 80 inches, or exceeding 5:1 for rolls with roll face length over 80 inches, (b) maintaining work roll contour by concurrent deforming of back-up rolls, back-up shafts, or work rolls, or (c) any other features for achieving special lateral and/or longitudinal contour controls comparable to (a) or (b) above; and specially designed parts and accessories. <sup>1</sup>		421	QSTVWXYZ	500	500	0	
* 7152(6)B Other plate mills over 160 inches in width; and parts and accessories, n.e.c. <sup>1</sup>		422	QSTVWXYZ	1,000	1,000	0	
7152(7)C Other rolling mills and equipment; and parts and accessories, n.e.c.; and ingot molds for heavy steel ingots. <sup>1</sup>		428	SZ	—	—	—	
7152(8)A Flame cutting machines with tracer heads designed for or equipped with numerical control systems specially designed for controlling coordinated simultaneous (contouring and continuous path) movements in two or more axes; and specially designed parts and accessories, n.e.c. <sup>1</sup>		421	QSTVWXYZ	500	500	0	
* 7152(9)B Flame cutting machines with tracer heads designed for or equipped with electronic closed loop control systems designed solely for positioning operations; and parts and accessories, n.e.c. <sup>1</sup>		422	QSTVWXYZ	500	500	0	
* 7152(10)D Commodities not listed above, classified under Schedule B Nos. 715.2120 through 715.2340. (Also specify 7-digit Schedule B No.)		428	SWXYZ	—	—	100	
717(1)G* Commodities classified under Schedule B Nos. 717.1110 through 717.3070. <sup>2</sup>		418	SZ	—	—	—	
718(1)A Construction equipment built to military specifications, specially designed for airborne transport; and specially designed parts, accessories, and attachments, n.e.c. <sup>1</sup>		401	QSTVWXYZ	500	0	0	
718(2)A Other construction equipment, tractor-mounted, possessing or built to current military specifications differing materially from their normal commercial specifications; and specially designed parts, accessories, and attachment, n.e.c. (Specify as military.) <sup>1</sup>		401	QSTVWXYZ	500	0	0	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>1</sup> See § 899.2, Interpretation 14.

<sup>2</sup> Report rolls for rolling mills in both "number" and "pound."

<sup>3</sup> See § 899.2, Interpretation 7.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> See § 899.2, Interpretation 29(b), for commodities requiring a validated license for export to East Germany.

<sup>6</sup> Export authorization is required from U. S. Treasury Department for items of which 90 percent or more of the total value is attributable to gold content. See § 870.10(b).

<sup>7</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>8</sup> Report machines in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions Class
				T	V	X	
* 718(5)J Rotary drill rigs incorporating rotary tables with drawworks designed for an input of 150 horsepower and over; and parts, accessories, and attachments, n.e.c., except drift indicators not containing gyroscopes or cameras, core barrels, crown and travelling blocks, hooks, swivels, drill collars, tool joints, kellys, and kelly and rotary substitutes. (Specify input horsepower.) [Report derricks in No. 7193, and truck mounted rigs in No. 732.]		408	QSWXYZ	—	—	100	
718(4)A Boring and drilling machines (construction, excavating, etc.) incorporating Laser, Maser, or Iraser devices; and specially designed parts and accessories, n.e.c. [Report Lasers, Masers, or Irasers exported as replacements or accessories in No. 7299.]		401	QSTVWXYZ	500	500	0	
718(5)A Foundry machines specially designed for the manufacture of arms, munitions, or implements of war; and specially designed parts, n.e.c. <sup>2</sup>		421	QSTVWXYZ	500	500	0	
* 718(6)J Other foundry sand agglomerating, molding, or shaping machines; and parts, n.e.c.		428	QSWXYZ	—	—	100	
718(7)A Glassworking machinery and equipment (specify by name), as follows: (a) specially designed for the manufacture of electron tubes or semi-conductor devices and parts and sub-assemblies thereof under No. 72930 if such number is followed by the code letter "A"; (b) specially designed for the manufacture of any silicon transistors, or (c) for automatic or semi-automatic assembly and/or sorting of electronic equipment and parts and sub-assemblies thereof, except standard equipment for the assembly of entertainment-type receiver tubes or television picture tubes under No. 72950 if such number is not followed by the code letter "A"; and specially designed parts and accessories, n.e.c. <sup>2</sup>		411	QSTVWXYZ	500	100	0	
* 718(8)D Standard equipment designed for automatic exhaust sealing and getting of standard entertainment type 7-pin miniature and 9-pin noval tubes; and parts and accessories, n.e.c.		418	SWXYZ	—	—	100	
* 718(9)B Other machines, except standard equipment for the assembly of entertainment type receiver tubes or television tubes, capable of: (a) manufacturing components for electron tubes, transistors, or crystal diodes; or (b) assembling electron tubes, or components or subassemblies thereof; and parts and accessories, n.e.c.		412	QSTVWXYZ	500	100	0	
718(10)C Commodities listed in § 399.2, Interpretation 29(a).		418	SZ	—	—	—	
* 718(11)E Commodities not listed above, classified under Schedule B Nos. 718.1115 through 718.5220. (Also specify 7-digit Schedule B No.) <sup>4</sup>		408	SKYZ	—	—	100	
7191(1)A Electrolytic cells for the production of fluorine, with a production capacity greater than 250 grams of fluorine per hour (specify by name); and specially designed parts, n.e.c.		411	QSTVWXYZ	100	100	0	
* 7191(2)D Other electrolytic cells, n.e.c. (specify by name); and parts, n.e.c.		418	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report drill rigs in "number."

<sup>3</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

<sup>4</sup> For export control purposes: (a) the term "automatic" refers to machinery not requiring the assistance of a human operator to complete its function or functions during each complete cycle of operations; (b) the term "semi-automatic" refers to machinery requiring the assistance of a human operator to complete part but not all of its functions during each complete cycle of operations; and (c) the term "functions" in (a) and (b) above does not include the initial loading or final unloading of material from the machine.

<sup>5</sup> See § 399.2, Interpretation 29(b), for commodities requiring a validated license for export to East Germany.

<sup>6</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>7</sup> Floating dredgers (Schedule B No. 785.5060) require export authorization from the U. S. Maritime Administration. See § 370.10(f).

Export Control Regulations

June 1, 1972

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Precoding Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 7191(3)E Gas generators, except unitized acetylene gas generating apparatus; and parts, n.e.c.		418	WXYZ	—	—	100	
* 7191(4)B Self-contained air conditioning machines specially designed for military use; and parts, n.e.c.		412	QSTVWXYZ	500	500	0	
* 7191(5)D Metal heat-treating nonelectric industrial furnaces or heaters; and parts and attachments, n.e.c.		428	SWXYZ	—	—	100	
* 7191(5)E Other nonelectric furnaces, ovens, and kilns, except bakery ovens and carbon black furnaces; and parts and attachments, n.e.c.		428	WXYZ	—	—	100	
7191(7)A Cryogenic refrigeration equipment specially designed for maintaining ambient temperatures below minus 170° C. and (a) designed for use in marine, airborne, or space application, (b) ruggedized for mobile ground use, or (c) designed to maintain operating temperatures for electrical, magnetic, or electronic equipment or components; and specially designed parts, n.e.c. <sup>1</sup>		311	QSTVWXYZ	500	500	0	P-8
7191(8)A Cryogenic refrigeration equipment consisting of, or containing as components thereof, jacketed containers for the storage or transportation of liquefied gases at temperatures below minus 274° F. (minus 170° C.), including mobile units, specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon, with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation and (1) having a fixed storage capacity of 500 tons or more, or (2) having a mobile capacity exceeding 1,200 gallons (4,542 liters) and an evaporation loss rate of less than 1.5 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight; or (c) liquefied gases boiling at temperatures below minus 828° F. (minus 200° C.) with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a liquid capacity of more than 250 gallons (946 liters) and an evaporation loss rate of less than 8 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight; and specially designed parts, n.e.c.		311	QSTVWXYZ	500	500	0	P-8
7191(9)A Environmental chambers capable of pressures of 26 Torr or less for treating materials by a process involving a change in temperature; and specially designed parts and accessories, n.e.c. <sup>1</sup>		411	QSTVWXYZ	500	500	0	
* 7191(10)B Process vessels specially designed for chemically processing radioactive material; and parts and accessories, n.e.c. (Specify name of vessel and give full specifications.)		412	QSTVWXYZ	0	0	0	
7191(11)A Equipment specially designed for the production of uranium hexafluoride (UF <sub>6</sub> ); and specially designed parts and accessories, n.e.c. (Specify name of machine or equipment and give full specifications.)		411	QSTVWXYZ	0	0	0	
7191(12)A Other machines and equipment, n.e.c., specially designed for use in processing of irradiated nuclear materials to isolate or recover fissionable materials; and specially designed parts and accessories, n.e.c. (Specify name of machine or equipment and give full specifications.) [Report counter-current solvent extractors and centrifuges in No. 7192; and fuel chopping, disassembling, and de jacketing machines in No. 71980.]		411	QSTVWXYZ	0	0	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> Report machines, air conditioners, refrigerators, and condensing or refrigerating units in "number."  
<sup>3</sup> See § 399.2, Interpretation 17.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	E x c e l u s i o n N u m b e r	* Validated License Required for Country Groups Shown Below	* GLV # Value Limits for Shipments to Country Groups			Special Provision List
				T	V	X	
7191(13)A Heat exchangers made of aluminum,    ..... <sup>2</sup> [411] QSTVWXYZ    0    0    0    copper, nickel, or alloys containing more than 60 percent nickel, or combinations of these metals as clad tubes, designed to operate at subatmospheric pressure, with a leak rate of less than 10 <sup>-4</sup> atmospheres per hour under a pressure differential of 1 atmosphere (specify type of metal and operation specifications); and specially designed parts, n.e.c.							
7191(14)A Equipment for the fractional separation of air into its various components, except helium, which has been specially designed for the withdrawal of liquid end products to the total amount of 60 tons or more per 24-hour day, provided that the withdrawal of liquid oxygen or nitrogen exceeds 50 tons per 24-hour day, except plants not capable of producing more than 15 percent of their total daily product as extractable gas in liquid form, provided that the withdrawal of liquid oxygen or nitrogen does not exceed 12.5 percent of their total daily product; and specially designed parts, n.e.c.				500	100	0	
* 7191(15)B Other equipment specially designed    ..... [412] QSTVWXYZ    500    100    0    for the production in liquid form of air, oxygen, nitrogen, and/or argon and producing one ton or more per day of gas in liquid form, except equipment for plants not capable of producing more than 25 percent of their total daily product as extractable gas in liquid form; and parts, n.e.c.				500	100	0	
7191(16)A Equipment for the production of liquid    ..... [411] QSTVWXYZ    500    100    0    hydrogen, except plants with a capacity of less than 1½ tons per 24-hour day and not designed for, or capable of, the production of hydrogen slush; and specially designed parts, n.e.c.				500	100	0	
* 7191(17)B Equipment specially designed for the    ..... [412] QSTVWXYZ    500    100    0    production of liquid hydrogen and producing 1 ton but less than 1½ tons per 24-hour day of gas in liquid form, except equipment for plants not capable of produc- ing more than 25 percent of their total daily product as extractable gas in liquid form; and parts, n.e.c.				500	100	0	
* 7191(18)B Other liquid oxygen or liquid nitrogen    ..... [412] QSTVWXYZ    500    500    0    production equipment, mobile; and parts, n.e.c.				500	500	0	
* 7191(19)B Equipment specially designed for use    ..... [412] QSTVWXYZ    500    100    0    in production of nitric acid of 88 percent or higher concentration, or for the concentration of nitrogen tetroxide and/or nitric oxides or mixtures thereof; and parts and accessories, n.e.c.				500	100	0	
7191(20)A Equipment specially designed for the    ..... [411] QSTVWXYZ    0    0    0    production and/or concentration of deuterium oxide; and specially designed parts.				0	0	0	
7191(21)A Equipment for the production of liquid    ..... [411] QSTVWXYZ    100    100    0    fluorine; and specially designed parts.				100	100	0	
7191(22)A Equipment (a) for the separation of    ..... [411] QSTVWXYZ    500    100    0    helium from natural gases; and (b) for the pro- duction of liquid helium, except equipment which has a capacity of no more than 20 liters per hour; and specially designed parts.				500	100	0	
* 7191(23)D Other equipment for the production of    ..... [418] SWXYZ    —    —    100    liquid helium; and parts, n.e.c.				—	—	100	
* 7191(24)D Industrial processing vessels, nonmix-    ..... [418] SWXYZ    —    —    100    ing, n.e.c., specially designed for use in the fol- lowing unit operations: (a) solvent processing, (b) fractionating, rectifying, and dephlegmatizing, (c) hydro- genation, (d) dehydrogenation, (e) isomerization, (f) polymerization, (g) aromatization, (h) alkylation, (i)				—	—	100	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report heat exchangers in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
desulphurization, or (j) thermal and catalytic cracking, reforming, or platforming; and parts and accessories therefor, n.e.c.							
* 7191(25)J Other fractionating columns, heat ex- changers, and processing vessels having all flow- contact surfaces <i>made of or lined with any of the following materials:</i> (a) 90 percent or more tantalum, titanium, or zirconium either separately or combined; (b) 50 percent or more cobalt, molybdenum, nickel, or tungsten either separately or combined; (c) 18 percent or more silicon; (d) steel alloys containing more than 3 percent of (i) chromium and molybdenum combined, or (ii) chromium and tungsten combined, or (iii) chromium, molybdenum, or tungsten combined; (e) 2.5 percent or more nickel; (f) fluoro and/or silico resins; (g) glass (acid-, heat-, or shock-resistant); (h) ceramics; (i) carbon; (j) graphite; or (k) acid/heat resistant cement; and parts, n.e.c.		418	QSWXYZ	—	—	100	
* 7191(26)D Fractionating columns having, or hav- ing provisions for, 25 or more trays; and parts, n.e.c.		418	SWXYZ	—	—	100	
* 7191(27)E Other machines and equipment for testing or processing materials by means of a change in temperature, <i>except vegetable oil machines; tobacco processing machines; sterilizers and autoclaves, dental, medical, surgical and laboratory; pulp and paper mill machines; rubber processing machines; asphalt heating kettles; sugar-mill machines; and bituminous heaters; and parts, n.e.c.</i> (See § 399.2, Interpretation 17.)		418	SXYZ	—	—	100	
7191(28)G Commodities not listed above, classi- fied under Schedule B Nos. 719.1100 through 719.1975. (Also specify 7-digit Schedule B No.)		418	SZ	—	—	—	
7192(1)A Pump parts and attachments wholly <i>made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22.</i>		401	QSTVWXYZ	500	100	0	
7192(2)A Industrial pumps having all flow-contact surfaces <i>made of any of the following materials:</i> (a) 90 percent or more tantalum, titanium, or zirconium, either separately or combined, <i>except materials containing more than 97 percent and less than 99.7 percent titanium, or (b) polytetrafluoroethylene or the copoly- mers of tetrafluoroethylene and hexafluoropropylene; and specially designed parts and attachments, n.e.c.</i> (Specify metal content in percent.)		401	QSTVWXYZ	500	100	0	
* 7192(3)B Other industrial pumps having all flow- contact surfaces <i>made of any of the following ma- terials:</i> (a) more than 97 percent or less than 99.7 percent titanium, (b) 50 percent or more cobalt or molyb- denum, either separately or combined, or (c) polychlorotrifluoroethylene; and parts and attachments, n.e.c.		402	QSTVWXYZ	500	500	0	
7192(4)A Pumps specially designed for operation at temperatures below minus 274° F. (minus 170° C.), <i>except pumps with a flow rate of 100 gallons per minute or less designed to operate at temperatures above minus 328° F. (minus 200° C.); and specially designed parts and attachments, n.e.c.</i> (Specify designed operating temperatures and gpm.)		401	QSTVWXYZ	500	100	0	
* 7192(5)B Vertically shafted centrifugal pumps, glandless, hermetically sealed (canned) type or mechanical pressurized sealed type, having all flow-contact surfaces <i>made of or lined with 10 percent or more nickel and/or chromium and rated at 50 kilowatts or more; and parts and attachments, n.e.c.</i> (Give full speci- fications.)		402	QSTVWXYZ	100	100	0	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

1 Report unit for each commodity in accordance with Schedule B requirement.

2 See § 399.2, Interpretation 22(b), for commodities requiring a validated license for export to East Germany.

3 Report pumps in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country Number	Validated Licenses Required for Country Groups Shown Below	CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 7192(6)B Other centrifugal pumps, glandless, hermetically sealed (canned) type, having all flow-contact surfaces made of 10 percent or more chromium or nickel, either separately or combined; and parts and attachments, n.e.c. (Identify type and specify metal content in percent.)		402	QSTVWXYZ	100	100	0	
7192(7)A Pumps designed to move molten metals by electro-magnetic forces; and specially designed parts and attachments, n.e.c. (Specify type and that pumps are so designed.)		401	QSTVWXYZ	100	100	0	
* 7192(8)C Pumps designed to deliver at pressures of 1,000 psi and over and to operate at temperatures of 350° F. and over; and parts and attachments, n.e.c. (Specify delivery pressure and horsepower.)		402	QSVWXYZ	—	500	0	P-12
* 7192(9)J Other pumps, as follows: (a) centrifugal, designed to operate at speeds of 7,000 rpm or over and to produce pressures of 800 psi or over and having all flow-contact surfaces made of 10 percent or more chromium or nickel, either separately or combined; (b) specially designed for use in the processing of petroleum, petrochemicals, natural gas, or their fractions; (c) centrifugal, designed for an internal pumpcase working pressure of over 300 psi and a power input greater than 1,000 horsepower; (d) slush (mud) pumps, reciprocating type, designed to deliver at pressures of 1,000 psi or over and requiring a drive rated 200 horsepower or over; and (e) oilfield production (bottom hole) pumps; and parts and attachments therefor. (Specify operating speed, pressure, and temperature.)		408	QSWXYZ	—	—	100	
* 7192(10)J Other pumps having all flow-contact surfaces made of or lined with any of the following materials: (a) 50 percent or more nickel or tungsten, either separately or combined; (b) 18 percent or more silicon; (c) steel alloys containing more than 8 percent of (i) chromium and molybdenum combined, (ii) chromium and tungsten combined, or (iii) chromium, molybdenum, or tungsten combined; (d) 2.5 percent or more nickel; (e) fluoro and/or silico resins; (f) glass (acid-, heat-, or shock-resistant); (g) ceramics; (h) carbon; (i) graphite; or (j) acid/heat resistant cement; and parts and attachments therefor.		408	QSWXYZ	—	—	100	
7192(11)A Cryopump systems (that is, systems in which the circulation of liquefied gas is used to achieve a vacuum—static or dynamic—by lowering the temperature of the environment); and specially designed parts and attachments, n.e.c.		411	QSTVWXYZ	500	100	0	
7192(12)A Diffusion vacuum pumps rated for un baffled pumping speeds of more than 50,000 liters of nitrogen per second at pressures of 10 <sup>-4</sup> mm. of mercury or less; and specially designed parts and attachments, n.e.c.		411	QSTVWXYZ	500	100	0	
7192(13)A Turbo-molecular pumps having a capacity higher than 2,000 liters of nitrogen per second; and specially designed parts and attachments, n.e.c.		411	QSTVWXYZ	500	100	0	
7192(14)A Ion vacuum pumps having speeds of 800 or more liters of hydrogen per second at pressures of 10 <sup>-4</sup> mm. of mercury or more; and specially designed parts and attachments, n.e.c.		411	QSTVWXYZ	500	100	0	
* 7192(15)B Other ion vacuum pumps; and other diffusion vacuum pumps, 12 inches in diameter and larger (diameter measured inside the barrel at the inlet jet); and parts and attachments, n.e.c.		412	QSTVWXYZ	1,000	1,000	0	P-9
* 7192(16)F Other vacuum pumps, except mechanical vacuum pumps; and parts and attachments, n.e.c.		418	SYZ	—	—	—	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 99.1.  
 † Report pumps in "number."

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7192(17)—7192(27)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated Licenses Required for Country Groups Shown Below	GLV Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
7192(17)A Compressors and blowers (turbo, cen- trifugal, and axial flow types) having a capacity of 60 cfm or more and wholly made of or lined with aluminum, nickel, or alloy containing 60 percent or more nickel; and specially designed parts and attachments. (Specify CFM capacity or capacities, pressure ratio or ratios, discharge pressure, rpm, rotor or impeller diameter, gas molecular weight, type of metal, and if nickel alloy, state percentage of nickel content.)		401	QSTVWXYZ	0	0	0	
* 7192(18)J Centrifugal and axial flow compressors and blowers: (a) specially designed for wind tunnel use, or (b) having an overall compression ratio of 8.5 to 1 coupled with a capacity of 100,000 cubic feet per minute or more at standard conditions (60° F. and 14.7 psia) with case pressures or maximum permissible dis- charge pressures of 60 psia and higher; and parts and attachments, n.e.c.		408	QSWXYZ	—	—	100	
* 7192(19)J Other reciprocating compressors over 125 horsepower and all other centrifugal, axial flow and mixed flow compressors and blowers having all flow-contact surfaces made of or lined with any of the following materials: (a) 90 percent or more tantalum, titanium, or zirconium either separately or combined; (b) 50 percent or more cobalt, molybdenum, nickel, or tungsten either separately or combined; (c) 18 percent or more silicon; (d) steel alloys containing more than 8 percent of (i) chromium and molybdenum combined, (ii) chromium and tungsten combined, or (iii) chromium, molybdenum, or tungsten combined; (e) 2.5 percent or more nickel; (f) fluoro and/or silico resins; (g) glass (acid-, heat-, or shock-resistant); (h) ceramics; (i) carbon; (j) graphite; or (k) acid/heat resistant cement; and parts and attachments, n.e.c.		408	QSWXYZ	—	—	100	
* 7192(20)J Compressors, fans, and blowers, any type, specially designed or modified for military or naval shipboard use; and parts and attachments, n.e.c. (Specify by name.)		408	QSWXYZ	—	—	100	
7192(21)A Counter-current solvent extractors spe- cially designed for the extraction of radioactive substances (for example, pulsed columns and mixer-settlers made of stainless steel); and specially designed parts.		411	QSTVWXYZ	0	0	0	
7192(22)A Equipment specially designed for the separation of isotopes of uranium and/or lithium; and specially designed parts, n.e.c.		411	QSTVWXYZ	0	0	0	
* 7192(23)B Equipment for filtering, purifying, sep- arating, or treating radioactive impurities from nuclear reactor coolant; and parts, n.e.c.		412	QSTVWXYZ	100	100	0	
7192(24)A Gas centrifuges capable of the enrich- ment or separation of isotopes; and specially de- signed parts, n.e.c. <sup>1</sup>		411	QSTVWXYZ	0	0	0	
* 7192(25)B Equipment, n.e.c., using the technique of gas chromatography in purifying or separating materials; and parts, n.e.c.		412	QSTVWXYZ	500	100	0	
* 7192(26)B Centrifugal counter-current solvent ex- tractors; and parts, n.e.c.		412	QSTVWXYZ	500	500	0	
* 7192(27)B Other centrifuges, power-driven, bowl type, with all product contact surfaces of alumi- num, nickel, or alloy containing 60 percent or more nickel; and parts, n.e.c. (Specify by name; and specify kind of metal and, if nickel alloy, state percentage of nickel content.)		412	QSTVWXYZ	0	0	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.<sup>2</sup> Report compressors, fans, and blowers in "number."<sup>3</sup> See § 370.10(e) for commodities which require export authorization from the U. S. Atomic Energy Commission.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 7192(28)B Centrifuge bowls, wholly made of or lined with aluminum, nickel, or alloy containing 60 percent or more nickel; and parts, n.e.c. (Specify by name and specify kind of metal and, if nickel alloy, state percentage of nickel content.)		412	QSTVWXYZ	0	0	0	
* 7192(29)D Oil and gas separating, filtering, and purifying equipment (for example, flow splitters, separators, treaters, desalters, dehydrators, scrubbers, absorbers, LACT units, water knockout, etc.); and parts, n.e.c.		408	SWXYZ	—	—	100	
7192(30)G Pumps, compressors, blowers, fans, centrifuges, separators, and filtering and purifying machines listed in § 399.2, Interpretation 29(a).		408	SZ	—	—	—	
7192(31)A Centrifuges designed for testing electron tubes, semiconductor devices, integrated circuits, and components and parts thereof; and specially designed parts and accessories, n.e.c.		411	QSTVWXYZ	500	0	0	
* 7192(32)E Other pumps, compressors, blowers, fans, centrifuges, separators, and other filtering and purifying machines for liquids, air, and gases; and parts, n.e.c.		418	SXYZ	—	—	100	
7193(1)A Military type integral tractor-ahovel loaders, industrial tractors, and lift trucks; and specially designed parts and attachments. <sup>2</sup>		401	QSTVWXYZ	500	0	0	
* 7193(2)J Oil and gas field lifting equipment, n.e.c., except oilfield derricks, platforms, and substructures; and parts, n.e.c. (Specify by name.) [Report well drilling machines and parts in No. 718, and if truck-mounted in No. 732; pumps, separating, filtering, and purifying equipment in No. 7192; valves and valve assemblies in No. 7199; and oil and gas field equipment, n.e.c., and parts, n.e.c., in No. 71980.]		408	QSWXYZ	—	—	100	
7193(3)G Commodities listed in § 399.2, Interpretation 29(a).		408	SZ	—	—	—	
* 7193(4)E Commodities not listed above, classified under Schedule B Nos. 719.8102 through 719.8260. (Also specify 7-digit Schedule B No.) <sup>4</sup>		408	SXYZ	—	—	100	
7194(1)G Domestic food-processing appliances, refrigerators, freezers, and water heaters, nonelectric; and parts, n.e.c.		218	SZ	—	—	—	
7195(1)A Slicing, dicing, scribing, and scribe break-ing equipment (specify by name) for the manufacture of semiconductor devices or parts thereof; and specially designed parts, accessories, and attachments, n.e.c.		411	QSTVWXYZ	500	100	0	
7195(2)A Machines incorporating Lasers, Masers, or Irasers or similar devices for working ceramics, concrete, quartz crystal, stone (including artificial precious or semi-precious stones) and mineral materials; and specially designed parts, accessories, and attachments, n.e.c. [Report Lasers, Masers, or Irasers exported as replacements or accessories in No. 7299.]		421	QSTVWXYZ	500	500	0	
* 7195(3)D Optical curve generators capable of producing aspherical curves without the use of mating surfaces; and parts, accessories, and attachments, n.e.c.		418	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> Report unit for each commodity in accordance with Schedule B requirement.  
<sup>3</sup> Possessing or built to current military specifications differing materially from normal commercial specifications.  
<sup>4</sup> Report machines in "number."  
<sup>5</sup> Launching, arresting, and recovery equipment for military aircraft, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 1 to Part 370.

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7195(4)—71970(1)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
7195(4)A Grinding heads and spindle assemblies for grinding machines designed or rated for operation at speeds in excess of 120,000 r.p.m., except for hand-held tools.		421	QSTVWXYZ	500	0	0	
7195(5)A Parts, accessories, and attachments specially designed for electron beam machines, except equipment using the "sparking" technique.		411	QSTVWXYZ	500	500	0	
7195(6)A Military type jigs, fixtures, and plate metalworking accessories; and specially designed parts.		421	QSTVWXYZ	500	100	0	
7195(7)A Parts, accessories, attachments, and auxiliary equipment specially designed for other metalworking machines and machine tools under No. 71510 if such number is followed by the code letter "A."		421	QSTVWXYZ	100	100	0	
* 7195(8)B Parts, accessories, attachments, and auxiliary equipment, n.e.c., for other metalworking machines and machine tools under No. 71510 if such number is followed by the code letter "B."		422	QSTVWXYZ	1,000	1,000	0	
* 7195(9)E Parts, accessories, attachments, and auxiliary equipment, n.e.c., for (a) bonding machines for applying fins on tubing, (b) axle straighteners, (c) single-spindle automatic chucking lathes, and (d) single-spindle between-center lathes.		428	SXYZ	—	—	100	
* 7195(10)D Parts, accessories, attachments, and auxiliary equipment, n.e.c., for other metalworking machines and machine tools under No. 71510.		428	SWXYZ	—	—	100	
7195(11)G Commodities not listed above, classified under Schedule B Nos. 719.5100 through 719.5480. (Also specify 7-digit Schedule B No.)		418	SZ	—	—	—	
7196(1)A Arc plasma devices, n.e.c., for generating a flow of ionized gas in which the arc column is constricted, except (a) devices wherein the flow of gas is for isolation purposes only, and (b) devices of less than 80 kilowatts for cutting, welding, plating and/or spraying; equipment incorporating such devices; and specially designed parts, accessories, and controls, n.e.c.		411	QSTVWXYZ	500	0	0	
* 7196(2)D Arc plasma devices of less than 80 kilowatts which utilize or generate a flow of ionized gas for cutting, welding, plating and/or spraying; equipment incorporating such devices; and spray etching, rinsing, and cleaning machines, n.e.c., designed for the production of printed circuit boards; and parts, n.e.c.		418	SWXYZ	—	—	100	
7196(3)C Commodities not listed above, classified under Schedule B Nos. 719.6110 through 719.6600. (Also specify 7-digit Schedule B No.)		418	SZ	—	—	—	
71970(1)A Ball bearings and cylindrical roller bearings with inner bore diameter of 10 millimeters or less, having tolerances of BEC 5 or closer (for example, BEC 5, 7, or 9) and having either or both of the following characteristics: (a) rings, balls, or rollers made from any material, except SAE 52100 steel, SAE 4615 steel, or low carbon steel containing 0.08 up to and including 0.18 percent carbon, or (b) designed for use at normal operating temperatures over 302° F. (150° C.); and specially designed parts. (Specify tolerance, type material, and normal operating temperature.) (See § 376.7.) <sup>a</sup>		411	QSTVWXYZ	500	100	0	

<sup>a</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>b</sup> See § 399.2, Interpretation 29(b), for commodities requiring a validated license for export to East Germany.

<sup>c</sup> Tolerances based on standards as adopted by the Anti-Friction Bearing Manufacturers' Association. If the exporter does not know whether a shipment of bearings has these tolerances, the manufacturer of the bearings will be able to provide the information.

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Precise Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
71970(2)A Ball bearings and cylindrical roller bearings, except separable ball bearings and thrust ball bearings, with inner bore diameter exceeding 10 mm., having tolerances of BEC 7 or closer and having either or both of the following characteristics: (a) rings, balls, or rollers made of any material, except SAE 52100 steel, SAE 52105 steel, or low carbon steel containing 0.06 up to and including 0.18 percent carbon, or (b) designed for use at normal operating temperatures over 302° F. (150° C.); and specially designed parts. (Specify tolerance, type material, and normal operating temperature.) (See § 376.7.) <sup>1</sup>		411	QSTVWXYZ	500	100	0	
* 71970(2)D Other ball and cylindrical roller bearings having tolerances of BEC 5 or closer, except bearings having rings, balls, or rollers made of low carbon steel (0.06 to 0.18 percent carbon); and parts, n.e.c. (Specify tolerance, type material, and normal operating temperature.) (See § 376.7.) <sup>1</sup>		418	SWXYZ	—	—	100	
71970(4)G Other ball and roller bearings; and parts, n.e.c. (Specify inner bore diameter, tolerance, type material, and normal operating temperature.) (See § 376.7.) <sup>1</sup>		418	SZ	—	—	—	
71980(1)A Environmental chambers capable of pressures of 26 Torr or less, including those which also have a capability of simulating other constant environments, such as radiation and temperature; and specially designed parts and accessories, n.e.c. <sup>2</sup>		411	QSTVWXYZ	500	500	0	
71980(2)A Wind tunnels, as follows: (a) supersonic (Mach 1.4 to Mach 5.5), hypersonic (Mach 5.5 to Mach 15), and hypervelocity (above Mach 15), except wind tunnels specially designed for educational purposes and having a test section size (measured internally) of less than 10 inches (25 cm); and (b) devices for simulating environment at Mach 1.4 and above, including hot shot tunnels, plasma arc tunnels, shock tubes, shock tunnels, gas tunnels, and light gas guns; and specially designed parts and accessories, n.e.c.		411	QSTVWXYZ	0	0	0	
* 71980(3)B Other transonic, supersonic, hypersonic, and hypervelocity wind tunnels and devices; and parts and accessories, n.e.c. [Report instruments in No. 7295, 8618, or 8619 depending on function and/or principle of operation.]		412	QSTVWXYZ	0	0	0	
71980(4)A Electron beam equipment for the deposition of thin film, the coating of thin film, or the working thereof, except equipment using the "sparkling" technique, or continuous vacuum roll coating machines having a voltage not in excess of 80 kilovolts, having a fixed electron beam gun and no accurate control of the thickness of the deposited layer; and specially designed parts. <sup>3</sup>		411	QSTVWXYZ	500	0	0	
71980(5)A Nuclear reactor fuel chopping, disassembling, or de-jacketing machines; and specially designed parts and accessories, n.e.c. (Give full specifications.)		411	QSTVWXYZ	0	0	0	
71980(6)A Cable-making machinery specially designed for the manufacture of communication cable, as follows: (a) submarine cable, (b) coaxial cable using a mineral dielectric, and (c) coaxial cable using a dielectric aired by discs, screw spiral, or other means; and specially designed parts and accessories, n.e.c.		421	QSTVWXYZ	500	500	0	
71980(7)A Machinery specially designed for the manufacture of wire and cable coated with or insulated with fluorocarbon polymers or copolymers; and specially designed parts and accessories, n.e.c.		421	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Tolerances based on standards as adopted by the Anti-Friction Bearing Manufacturers' Association. If the exporter does not know whether a shipment of bearings has these tolerances, the manufacturer of the bearings will be able to provide the information.

<sup>3</sup> See § 399.2, Interpretation 11.

<sup>4</sup> See § 399.2, Interpretation 17.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Processing Number	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 71980(8)B Other cable-making machinery, n.e.c., as follows: (a) machines for applying insulating material to conductors of multipair electric telecommunications cable, (b) machines for laying together conductors for multipair telecommunications cable and/or applying insulating, separating, binding, or identifying material thereto, and (c) machines for laying together conductors (pairs, quads, etc.) to form complete cable core or a part thereof; and parts and accessories, n.e.c.		422	QSTVWXYZ	500	500	0	
71980(9)A Assembling jigs and fixtures for mill-tary equipment; and specially designed parts and accessories, n.e.c.		421	QSTVWXYZ	500	0	0	
71980(10)A Ammunition hand-loading machines, except cartridge; and specially designed parts and accessories, n.e.c. <sup>1</sup>		411	QSTVWXYZ	500	0	0	
71980(11)A Machinery and equipment (specify by name) for the manufacture of semi-conductor devices and integrated circuits and for parts and subassemblies therefor, as follows: (a) specially designed for the manufacture of types of semi-conductor devices and integrated circuits and parts under No. 72930 if such number is followed by the code letter "A", (b) specially designed for the manufacture of silicon transistors, (c) for probing and/or sorting, (d) bonders and welders, (e) masks, or (f) for the manufacture of masks or the creation of a photosensitive pattern on the surface of a semiconductor or insulating substrate; and specially designed parts and accessories, n.e.c.		411	QSTVWXYZ	500	100	0	
* 71980(12)B Other machinery, n.e.c. (specify by name) capable of manufacturing or assembling transistors or crystal diodes, or components or subassemblies therefor; and parts and accessories, n.e.c.		412	QSTVWXYZ	500	100	0	
71980(13)A Equipment for the production of military explosives and solid propellants (for example, dehydration presses; extrusion presses for the extrusion of small arms, cannon, and rocket propellants; cutting machines for the sizing of extruded propellants; sweetie barrels (tumblers), 6 feet and over in diameter and having over 500 pounds product capacity; mixers for solid propellants; and nitators, continuous types); and specially designed parts and accessories, n.e.c. (Specify by name.)		411	QSTVWXYZ	500	100	0	
71980(14)A Machines of which the motions for positioning, wrapping, and winding of fibers are coordinated and programmed in three or more axes, specially designed to fabricate composite structures or laminates from fibrous and filamentary materials, and the mechanical parts of the machines, coordinating and programming controls; and specially designed parts, controls, and accessories, n.e.c.		421	QSTVWXYZ	500	500	0	
* 71980(15)B Other filament winding machines designed for or modified for the manufacture of rigid structural forms by precisely controlled tensioning and positioning of filament yarns, tapes, or rovings; and parts, controls, and accessories, n.e.c.		422	QSTVWXYZ	500	500	0	
71980(16)A Equipment for purifying or processing semiconductor materials, except equipment specially designed for the zone purification of germanium; and specially designed parts and accessories, n.e.c. <sup>2</sup>		411	QSTVWXYZ	500	0	0	
71980(17)A Equipment specially designed for the continuous coating of polyester base magnetic tape; and specially designed parts therefor. (Give detailed specification of magnetic tape to be produced.)		411	QSTVWXYZ	500	0	0	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.  
<sup>1</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.  
<sup>2</sup> Report machinery and equipment in "number."  
<sup>3</sup> For export control purposes, equipment for purifying and processing includes equipment which performs one or more of the following operations on semi-conductor materials: (a) purifying beyond 99.9 percent; (b) equalizing distribution of residual impurities; (c) achieving controlled introduction of impurities (in one or more stages of operation); or (d) producing monocrystalline material or forms (e.g., by drawing, pulling, deposition), including forming on substrates.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provision List
				Y	V	X	
71980(18)A Shell shot automatic blasting machines; and specially designed parts and accessories, n.e.c.		421	QSTVWXYZ	500	500	0	
71980(19)A Machinery and equipment for depositing or printing on insulating materials, or otherwise forming, <i>in situ</i> , component parts other than basic wiring (specify by name); and specially designed parts and accessories, n.e.c.		411	QSTVWXYZ	500	0	0	
*71980(20)B Other equipment specially designed to produce electronic assemblies by: (a) automatically inserting and/or soldering components on insulating panels, plates, or wafers to which wiring is applied by printing or other means, or (b) automatically or semi-automatically assembling wiring and/or packaging mounted modular insulated panels, plates, or wafers (specify by name); and parts and accessories, n.e.c. [Report cameras in No. 86140.]		412	QSTVWXYZ	500	0	0	
71980(21)A Machinery specially designed for the extrusion of polytetrafluoroethylene polymer and copolymer coagulated dispersions, or powders or pastes derived therefrom; and specially designed parts and accessories, n.e.c.		411	QSTVWXYZ	500	100	0	
71980(22)A Hot or cold isostatic presses, as follows: (a) capable of achieving a maximum working pressure of 20,000 psi or greater and possessing a chamber cavity with an inside diameter in excess of 16 inches, or (b) capable of achieving a maximum working pressure of 5,000 psi or greater and having a controlled thermal environment within the closed cavity, <i>except those possessing a chamber cavity with an inside diameter of less than 5 inches and which are also capable of achieving and maintaining a controlled thermal environment only between plus 176° F. (plus 80° C.), and minus 30° F. (minus 35° C.)</i> ; and specially designed parts and accessories, n.e.c.		421	QSTVWXYZ	100	100	0	
*71980(23)B Other hot or cold isostatic presses; and parts and accessories, n.e.c.		422	QSTVWXYZ	100	100	0	
71980(24)A Vacuum metallizing machinery specially designed for the continuous coating with metallized sheathing of synthetic film for dielectric use in the manufacture of capacitors listed under No. 7299 if such number is followed by the code letter "A"; and specially designed parts and accessories, n.e.c. <sup>1</sup>		411	QSTVWXYZ	500	0	0	
* 71980(25)B Other vacuum metallizing machinery specially designed for the continuous coating of polyester dielectric film for other condensers; and parts and accessories, n.e.c. <sup>1</sup>		412	QSTVWXYZ	500	0	0	
* 71980(26)E Other machines and mechanical appliances, <i>the following only</i> : accumulators, hydraulic; blending machines; coil winding machines for electrical components; diving bells, mechanically equipped; diving suits, metal, mechanically equipped; Hydrotor® proportioning, mixing, and dispensing machines for resins; shaking machines, laboratory; track press designed for repairing the crawler or track of a tractor; armature winding machines; and parts therefor, n.e.c.		418	SXYZ	—	—	100	
* 71980(27)F Other machines and mechanical appliances, <i>the following only</i> : assembling fixtures, production, <i>except those for production of military equipment</i> ; Permanent Magnet Ferro Filters®; and parts therefor, n.e.c.		418	SYZ	—	—	—	
71980(28)C Commodities listed in § 399.2, Interpretation 29(a).		418	SZ	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

® Trademark registered in the Patent Office of the United States.

<sup>2</sup> Report machinery and equipment in "number."

<sup>3</sup> See § 399.2, Interpretation 11.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number *	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 71980(29)D Other plastics working machines and equipment, n.e.c.; and parts, n.e.c.		418	SWXYZ	—	—	100	
* 71980(30)J Commodities not listed above, classified under Schedule B Nos. 719.8005 through 719.8095. (Also specify 7-digit Schedule B No.) <sup>2</sup>		418	QSWXYZ	—	—	100	
7199(1)A Molding boxes and molds for artillery molding or casting.	No.	421	QSTVWXYZ	500	0	0	
7199(2)A Valve parts and accessories wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22.	Lb.	411	QSTVWXYZ	500	100	0	
* 7199(3)B Pipe valves having all of the following characteristics: a pipe size connection of 8 inches or more inside diameter, all flow contact surfaces made of or lined with alloys of 10 percent or more nickel and/or chromium and rated at 1,500 psi or more; and parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	412	QSTVWXYZ	100	100	0	
7199(4)A Valves, 1 inch or more in diameter, fitted with bellows seal, and wholly made of or lined with aluminum, nickel, or alloys containing 60 percent or more nickel, except those having metal-to-metal seats; and specially designed parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	411	QSTVWXYZ	0	0	0	
7199(5)A Valves, cocks, or pressure regulators (a) specially designed to operate at temperatures below minus 274° F. (minus 170° C.), except those of 2-inch (50.8 mm.) diameter or less specially designed for operation at temperatures from minus 274° F. (minus 170° C.) to minus 328° F. (minus 200° C.); or (b) with all flow contact surfaces made of or lined with any of the following materials: (i) 90 percent or more tantalum, titanium, or zirconium, either separately or combined, except materials containing more than 97 percent or less than 99.7 percent titanium, (ii) polytetrafluoroethylene, or (iii) copolymers of tetrafluoroethylene and hexafluoropropylene; and specially designed parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	411	QSTVWXYZ	500	100	0	
* 7199(6)B Other valves, cocks, or pressure regulators with all flow contact surfaces made of or lined with any of the following materials: (a) more than 97 percent or less than 99.7 percent titanium, (b) 50 percent or more cobalt or molybdenum, either separately or combined, or (c) polychlorotrifluoroethylene; and parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	412	QSTVWXYZ	500	100	0	
* 7199(7)B Other valves, cocks, or pressure regulators of 2-inch diameter (50.8 mm.) or less specially designed for operation at temperatures from minus 274° F. (minus 170° C.) to minus 328° F. (minus 200° C.); and parts, n.e.c.	Lb. <sup>3</sup>	412	QSTVWXYZ	500	100	0	
* 7199(8)B Other valves fitted with bellows seal and wholly made of or lined with aluminum, nickel, or alloys containing 60 percent or more nickel; and parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	412	QSTVWXYZ	50	50	0	P-9
* 7199(9)D Other valve parts and accessories wholly made of other fluorocarbon polymers or copolymers.	Lb. <sup>3</sup>	418	SWXYZ	—	—	100	
* 7199(10)D Other valves, cocks, or pressure regulators (a) incorporating 90 percent or more tantalum, titanium, or zirconium, or 50 percent or more cobalt or molybdenum, either separately or combined; or (b) designed for use in the processing of petroleum, petrochemicals, natural gas, or their fractions; and parts, n.e.c. (Give full specifications.)	Lb. <sup>3</sup>	418	SWXYZ	—	—	100	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report machinery and equipment in "number."

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Report automatic control or regulating valves in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Processing Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 7199(11)J Mud valves, working pressure 600 psi or over, specially designed for rotary drill rigs, except core drill rigs; and valves and valve assemblies, 2,000 psi and over, specially designed for oil and gas field production (for example, wellhead, casinghead, and Christmas tree assemblies; inlet, manifold and production headers; hangers, chokes, etc.); and parts, n.e.c.	Lb.	408	QSWXYZ	—	—	100	
* 7199(12)E Other valves and valve assemblies specially designed for oil and gas field production; and parts, n.e.c.	Lb.	408	SYXZ	—	—	100	
* 7199(13)D Other valves, cocks, or pressure regulators having all flow-contact surfaces made of or lined with any of the following materials: (a) 50 percent or more nickel or tungsten, either separately or combined, (b) 13 percent or more silicon, (c) steel alloys containing any combination of chromium, with either or both molybdenum or tungsten in which the sum of the alloying elements exceeds 8 percent of the total, (d) 2.5 percent or more nickel, (e) fluoro and/or silico resins, (f) glass (acid-, heat-, or shock-resistant), (g) ceramics, (h) carbon, (i) graphite, or (j) acid/heat resistant cement; and parts, n.e.c. (Give full specifications.)	Lb.	418	SWXZY	—	—	100	
7199(14)A Plain bearings wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)		221	QSTVWXYZ	500	500	0	
* 7199(15)F Transmission shafts, cranks, bearing housings, pulleys, and mechanical power transmission equipment, n.e.c.; and parts, n.e.c. (See § 376.7.) [Report copper alloy propeller shafting in No. 682.]		438	SYZ	—	—	—	
7199(16)A Gaskets (joints) made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, or polyparaxylenes, where the value of such contained polymeric substances, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)		221	QSTVWXYZ	500	250	0	P-3
* 7199(17)B Other gaskets (joints) containing polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, polyparaxylenes, or polyimide-polyamide. (Specify name and value of these substances and total value of other materials.)		222	QSTVWXYZ	500	500	0	P-3
* 7199(18)D Gaskets (joints) wholly made of other fluorocarbon polymers or copolymers. (Specify by type.)		228	SWXZY	—	—	100	
7199(19)C Commodities listed in § 399.2, Interpretation 29(a).		418	SZ	—	—	—	
* 7199(20)F Commodities not listed above, classified under Schedule B Nos. 719.9120 through 719.9900. (Also specify 7-digit Schedule B No.) <sup>1</sup>		218	SYZ	—	—	—	
<b>ELECTRICAL MACHINERY, APPARATUS, AND APPLIANCES<sup>2</sup></b>							
722(1)A Synchronous motors of any rating having any of the following characteristics: (a) of size 30 (3 inches in diameter) and smaller having synchronous speeds in excess of 3,600 rpm, (b) designed to		421	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report automatic control or regulating valves in "number."

<sup>3</sup> Report mounted ball and roller bearings in "number."

<sup>4</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>5</sup> See § 399.2, Interpretations 4 and 10, for commodity interpretations related to shipments of machinery.

<sup>6</sup> Report motors in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Precedence Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Statements to Country Groups			Special Provisions List
				T	V	X	

operate below minus 25° C. or above plus 100° C., or (c) designed to operate from power sources of more than 400 Hz; and specially designed parts and accessories, n.e.c., including motor controls. (Specify by name and model number.)

- \* 722(2)D Other synchronous motors of any rating || .....<sup>1</sup> || 428 || SWXYZ || — || — || 100 ||  
having any of the following characteristics: (a) synchronous speeds in excess of 3,000 rpm, (b) designed to operate between minus 25° C. and minus 10° C., or between plus 55° C. and plus 100° C., or (c) of size 11 (1.1 inches in diameter) or smaller; and parts and accessories, n.e.c., including motor controls. (Specify by name and model number.)
- 722(3)A Direct current and alternating current || .....<sup>1</sup> || 421 || QSTVWXYZ || 500 || 500 || 0 ||  
torquers, i.e., torque motors specially designed for gyros and stabilized platforms; and specially designed parts and accessories, n.e.c., including motor controls. (Specify by name and model number.)
- 722(4)A Electric motors over 1,000 horsepower, || .....<sup>1</sup> || 601 || QSTVWXYZ || 500 || 500 || 0 ||  
reversing type, liquid cooled and totally enclosed; and specially designed parts and accessories, n.e.c., including motor controls. (Specify by rating, AC or DC.)
- 722(5)A Servo motors (gear head or plain), hav- || .....<sup>2</sup> || 421 || QSTVWXYZ || 500 || 100 || 0 ||  
ing any of the following characteristics: (a) designed to operate from power sources of more than 300 Hz, except those designed to operate from power sources of over 300 Hz up to and not exceeding 400 Hz with a temperature range of from minus 25° C. to plus 100° C., (b) designed to have a torque-inertia ratio of 10,000 radians per second or greater, (c) incorporating special features to secure internal damping, (d) employing solid state Hall effect, or (e) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts and accessories, n.e.c., including motor controls. (Specify by name and model number.)
- 722(6)A Synchros and resolvers, including instru- || ..... || 421 || QSTVWXYZ || 500 || 0 || 0 ||  
ments which perform functions similar to synchros or resolvers (for example, Microsyns®, Synchrotels®, and Inductosyns®), having any of the following characteristics: (a) a rated electrical error of 10 minutes or less, or of 0.25 percent or less of maximum output voltage, (b) a rated dynamic accuracy for receiver types of 1' or less, except that for units of size 30 (3 inches in diameter) or larger a rated dynamic accuracy of less than 1', (c) multipieced from single shaft types, (d) employing solid state Hall effect, (e) designed for gimbal mounting, or (f) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts and accessories, n.e.c., including motor controls. (Specify by name and model number.)
- \* 722(7)D Other servo control units, linear induc- || ..... || 428 || SWXYZ || — || — || 100 ||  
tion potentiometers, induction rate generators, synchros, and resolvers; and instruments which perform functions similar to synchros or resolvers with a rated electrical error from 0.25 to 0.5 percent of maximum output voltage; and parts and accessories, n.e.c.
- 722(8)A Induction potentiometers (including func- || ..... || 421 || QSTVWXYZ || 500 || 100 || 0 ||  
tion generators and linear synchros), linear and nonlinear, having any of the following characteristics: (a) a rated conformity of 0.5 percent or less, or of 18 minutes or less, (b) employing solid state Hall effect, (c) designed for gimbal mounting, or (d) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)
- 722(9)A Induction rate (tachometer) generators, || ..... || 421 || QSTVWXYZ || 500 || 100 || 0 ||  
synchronous and asynchronous, as follows: (a) employing solid state Hall effect; (b) with a housing diameter of 2 inches and smaller and a length (without shaft-ends) of 4 inches and smaller or with a diameter-to-length ratio greater than two to one, having one or

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Trademark registered in the Patent Office of the United States.

<sup>3</sup> Report motors in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
more of the following characteristics: (i) with a rated linearity of 0.5 percent or less, and/or (ii) all temperature-compensated or temperature-corrected types; or (c) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)							
* 722(10)B Other induction potentiometers (including function generators and linear synchros), linear and nonlinear, and induction rate (tachometer) generators, synchronous and asynchronous, of size 11 (1.1 inches in diameter) or smaller; and parts and accessories, n.e.c. (Specify by name and model number.)		[ 422 ]	QSTVWXYZ	500	100	0	
722(11)A Thermoelectric generators or devices, as follows: (a) junctions and/or combinations of junctions using any thermoelectric material having a maximum product of the figure of merit (Z) <sup>1</sup> and the temperature (T in °K) in excess of 0.75, (b) heat absorbing and/or electrical power generating devices containing any of the aforementioned junctions, or (c) other power generating devices which generate in excess of 10 watts per pound or 500 watts per cubic foot of the devices' basic thermoelectric components; and specially designed parts, components, and subassemblies, n.e.c. (Specify by name and model number.) <sup>2</sup> *		[ 601 ]	QSTVWXYZ	500	500	0	
* 722(12)D Electrical power equipment specially designed for aircraft (for example, generators, regulators, rectifiers, converters, inverters, magnetic amplifiers, transformers, etc.); and parts and accessories, n.e.c. (Specify by name.)		[ 438 ]	SWXYZ	—	—	100	
722(13)A Generators and turbine-generator sets specially designed for use with nuclear reactors; and specially designed parts and accessories, n.e.c. (Specify name, type, and rating.)		[ 601 ]	QSTVWXYZ	100	100	0	
* 722(14)B Other turbine-generator sets specially designed for use of saturated steam; and parts and accessories, n.e.c. (Specify name, type, and rating.)		[ 602 ]	QSTVWXYZ	100	100	0	
722(15)A Electronic inductive relays, transformers, coils, reactors, and chokes designed for and/or capable of reliable performance in relation to their electrical and mechanical characteristics and maintaining their design service lifetime while operating: (a) over the whole range of ambient temperatures from below minus 45° C. to above plus 100° C., or (b) at ambient temperatures of 200° C. or higher; and specially designed parts. (Specify by name and type number.) <sup>3</sup>		[ 611 ]	QSTVWXYZ	500	250	0	
722(16)A Pulse transformers specially designed for modulators capable of providing electrical impulses of peak power exceeding 200 kilowatts or of a duration of less than 0.1 microsecond, or a duty cycle in excess of 0.002; and specially designed parts. (Specify by name and type number.)		[ 611 ]	QSTVWXYZ	500	100	0	
722(17)A Parts for transformers, coils, reactors, chokes, motors, and generators (including cores, laminations, stampings, and other formed parts) made of magnetic materials having any of the characteristics set forth in § 899.2, Interpretation 6(a).		[ 601 ]	QSTVWXYZ	500	100	0	
722(18)A Power supplies and magnet controllers specially designed for use with cryogenic equipment capable of operating at ambient temperatures below minus 170° C.		[ 601 ]	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> The figure of merit (Z) equals Seebeck coefficient squared, divided by the product of electrical resistivity and thermal conductivity.

<sup>3</sup> See Supplement No. 1 to Part 170 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> The weight and cubic measurements in part (c) of this entry are not intended to encompass the complete device, but to include only the thermoelectric elements and assembly and the components for pumping calories. Other components, such as heating and/or cooling sources or containers, device frames or stands, and control equipment, are not to be included in the calculations.

<sup>5</sup> Report motors, generators, rotating converters, transformers, limiting reactors, and regulators in "number."

<sup>6</sup> The range of ambient temperatures from below minus 45° C. to above plus 100° C. defines the range at which the component may still be used without derating.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Priority	* Validated License Required for Country Groups Shown Below	* GLV § Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
722(19)A Resistance welding controls (electronic or magnetic) for welders specially designed for the manufacture of arms, munitions, and implements of war; and specially designed parts, n.e.c. <sup>1</sup>		421	QSTVWXYZ	500	500	0	
722(20)A Control units for power controlled searchlights designed for military use; and specially designed parts, n.e.c.		601	QSTVWXYZ	500	100	0	
722(21)A Potentiometers having any of the following characteristics, and special instruments rated to have the same characteristics: (a) linear, having a constant resolution and a rated linearity of 0.1 percent or less, (b) nonlinear, having a variable resolution and a rated conformity of 1.0 percent or less, (c) designed for gimbal mounting, or (d) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	250	0	
722(22)A Electronic and microwave switches, as follows: (a) waveguide switches designed for frequencies over 12,500 MHz, (b) waveguide switches having a bandwidth ratio greater than 1.5 to 1, (c) magnetic, including gyromagnetic, waveguide switches, (d) pressurized waveguide switches, and (e) transverse electromagnetic (TEM) mode switches using magnetic, including gyromagnetic, properties; and specially designed parts, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
722(23)A Equipment incorporating triggered spark gaps having an anode delay time of 15 microseconds or less and rated for a peak current of 3000 amperes or more; and specially designed parts, n.e.c.		611	QSTVWXYZ	500	50	0	
* 722(24)J Other waveguide and microwave switches designed for frequencies over 600 MHz, except mechanical and electromechanical switches designed for frequencies of 12,500 MHz and below; and parts, n.e.c. (Specify by name and type number.)		618	QSWXYZ	—	—	100	
722(25)C Commodities not listed above, classified under Schedule B Nos. 722.1002 through 722.2084. (Also specify 7-digit Schedule B No.) <sup>2</sup>		608	SZ	—	—	—	
723(1)A Wire and cable coated with or insulated with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify type of metal and coating or insulation.) <sup>3</sup>	Lb.	271	QSTVWXYZ	250	100	0	R
723(2)A Wire and cable coated or insulated with polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, or polyparaxylylenes. (Specify type of metal and coating or insulation.)	Lb.	271	QSTVWXYZ	250	100	0	R
723(3)A Communications cable, as follows: (a) submarine cable; (b) coaxial cable using a mineral insulator dielectric; or (c) coaxial cable using a dielectric aired by discs, beads, spiral screw, or any other means. (Specify type of metal.) <sup>4</sup>	Lb.	271	QSTVWXYZ	250	100	0	R
* 723(4)B Other coaxial or communications cable. (Specify type of metal.)	Lb.	272	QSTVWXYZ	250	100	0	R
* 723(5)J Insulated wire of nickel or nickel alloy as defined in § 399.2, Interpretation 33, as follows: (a) thermocouple nickel-chrome wire containing less than 95 percent nickel and within a diameter range of 0.2	Lb.	268	QSWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

<sup>3</sup> Report potentiometers in "number."

<sup>4</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> Electric conducting cable suitable for sweeping magnetic mines or for harbor defense, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
mm. to 5 mm., both inclusive, or (b) other wire containing 82 percent or more nickel, <i>except nickel-copper alloy wire containing not more than 8 percent of other alloying elements.</i> (Specify kind of wire or cable, give complete metal analysis, and type of insulation.)							
723(6)A Insulated niobium (columbium) or niobium alloy wire containing 50 percent or more niobium or 60 percent or more niobium-tantalum in combination.	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 723(7)D Other wire and cable, n.e.c., coated with or insulated with other fluorocarbon polymers or copolymers. (Specify type of metal and insulation.)	Lb.	268	SWXYZ	—	—	100	
* 723(8)E Other insulated wire and cable, n.e.c., <i>except copper or copper alloy, nickel or nickel alloy, niobium alloy, tungsten or tungsten alloy, aircraft or automotive ignition harness and cable sets, and appliance cord sets and other flexible cord sets.</i>	Lb.	268	SKYZ	—	—	100	
723(9)A Electrical insulators and fittings made of polyimides, polybenzimidazoles, polyimido-pyrrolones, aromatic polyamides, or polyparaxylylenes, where the value of such contained polymeric substance, <i>either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used.</i> (Specify name and value of these substances and total value of other materials.)	Lb.	221	QSTVWXYZ	500	250	0	
723(10)A Electrical insulators and fittings wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)	Lb.	221	QSTVWXYZ	500	500	0	
* 723(11)B Other electrical insulators and fittings made of polyimides, polybenzimidazoles, polyimido-pyrrolones, aromatic polyamides, or polyparaxylylenes, where the value of such contained polymeric substance <i>in combination with other fluorocarbon polymers or copolymers, is less than 50 percent of the total value of the materials used.</i> (Specify name and value of these substances and total value of other materials.)	Lb.	222	QSTVWXYZ	500	500	0	
* 723(12)D Other electrical insulators and fittings (a) wholly made of other fluorocarbon polymers or copolymers, or (b) containing polyimides, polybenzimidazoles, polyimido-pyrrolones, aromatic polyamides, polyparaxylylenes, polyimide-polyamide, and fluorocarbon polymers or copolymers. (Specify name and value of these substances and total value of other materials.)	Lb.	223	SWXYZ	—	—	100	
723(13)A Electrical conduit tubing and joints of base metal lined with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride.	Lb.	221	QSTVWXYZ	500	100	0	P-8
723(14)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 723.1010 through 723.2800. (Also specify 7-digit Schedule B No.)	Lb.	218	SZ <sup>2</sup>	—	—	—	
724(1)A Television receivers incorporating or combined with videotape recorders. (Specify by name and model number of recorder.) [Report individual video tape recorders, parts, and tape in No. 891.]	No.	611	QSTVWXYZ	500	250	0	
724(2)A Communications transmission equipment, including line or radio terminal, modem, multiplex, and intermediate amplifier or repeater equipment, as follows: (a) employing analog techniques, including		611	QSTVWXYZ	500	250	0	

<sup>2</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>2</sup> See § 399.2, Interpretation 30(b), for commodities requiring a validated license for export to East Germany.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions
				T	V	X	

frequency division multiplex, designed to transmit, carry, or receive frequencies higher than 150 KHz, *except carrier communications terminals specially designed for power lines and operating at frequencies below 1600 KHz*, and (b) employing digital transmission with analog input and output, including pulse code modulation, designed for use on communications circuits; and specially designed parts, accessories, components, and subassemblies, n.e.c. (Specify by name and model number.)<sup>1</sup>

**724(s)A** Data communications (including tele- || .....<sup>a</sup> | 611 | QSTVWXYZ | 500 | 100 | 0 |  
graph and data transmission) equipment having any of the following characteristics: (a) designed for operation at a data signalling rate in bits per second, exclusive of servicing and administrative channels, numerically in excess of either (i) 1200, or (ii) 65 percent of the channel (or sub-channel) bandwidth in Hz; and (b) employing automatic error detection and correction systems which do not require retransmission for correction, *except equipment having a data signalling rate of 800 bits per second or less*; and specially designed parts, accessories, components, and subassemblies, n.e.c. (Specify by name and model number.)<sup>2, 3, 4</sup>

**724(4)A** Radio transmitters or transceivers, includ- || .....<sup>a</sup> | 611 | QSTVWXYZ | 500 | 250 | 0 |  
ing transmitter amplifiers, having any of the following characteristics: (a) designed to operate at output carrier frequencies greater than 285 MHz, *except (i) television broadcasting transmitters and amplifiers therefor operating between 470 and 960 MHz, (ii) frequency-modulated and amplitude-modulated ground communications equipment required for use in the land mobile service operating in the 480 to 470 MHz band with a power output of not more than 25 watts for mobile units and 100 watts for fixed units, or (iii) amplitude-modulated radiotelephones equipment used for search and rescue work operating on a frequency of 243 MHz with a carrier power not exceeding 100 milliwatts*; (b) designed to provide any system of pulse modulation (*this does not include amplitude, frequency, or phase modulated television or telegraphic transmitters*); (c) rated for operation over a range of ambient temperatures extending from below minus 40°C. to above plus 55°C.; or (d) designed to provide a multiplicity of alternative output frequencies controlled by a lesser number of piezo-electric crystals, *except equipment in which the output frequency is selected only by manual operation either on the equipment or on a remote control unit and (i) those forming multiples of a common control frequency, or (ii) those in which the output frequency is a multiple of a common frequency which is not less than 1:1000 part of the oscillator frequency and is in steps of 1 KHz or greater*; and specially designed components, subassemblies, parts, and accessories, n.e.c., including but not limited to, intermediate frequency and power amplifiers and their parts, modulators and modulation amplifiers, serials, their filters and their connecting devices, control equipment placed in racks, and maintenance equipment. (Specify by name and model number.)<sup>1</sup>

\* **724(5)B** Other transmitters or transceivers hav- || .....<sup>a</sup> | 612 | QSTVWXYZ | 1,000 | 1,000 | 0 |  
ing any of the following characteristics: (a) more than 20 channels, (b) special facilities for interconnection with land line telephone circuits or switchboards, (c) frequency-modulated or amplitude-modulated communications equipment operating in the 420 to 470 MHz band, with a power output of 25 watts or less for mobile units and 100 watts or less for fixed units, (d) amplitude-modulated radiotelephone equipment used for search and rescue work operating on a frequency of 243 MHz with a carrier power of 100 milliwatts or less, (e) designed to operate at output carrier frequencies between 108 and 156 or from 223 up to and including 235 MHz, or (f) designed to provide a multiplicity of alternative output frequencies controlled by a lesser number of piezo-electric crystals, *except those forming multiples of a common control frequency*; and parts and accessories, n.e.c. (Specify by name and model number.)<sup>1</sup>

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 570 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> "Data signalling rate" is as defined in ITU recommendation 53.36, taking into account that for non-binary modulation systems bauds and bits per second are not equal. Bits for coding, checking, and synchronization functions are to be included.

<sup>4</sup> In the case of systems designed to operate in one voice channel, bandwidth will normally be 3100 Hz. In the case of CCITT or CCIR voice frequency telegraph systems, the bandwidth may be considered as the number of channels times the channel spacing.

<sup>5</sup> Report telephone instruments, switchboards, and switching devices, and wire teleprinter units in "number."

<sup>6</sup> Report transceivers and broadcast type transmitters and receivers in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Validated License Required for Country Groups Shown Below	* GLY & Value Limits for Shipments to Country Groups			* Special Provisions List	
			T	V	X		
724(6)A Radio relay (including microwave) com- munications equipment, as follows: (a) equip- ment employing tropospheric, ionospheric, or meteoric scatter phenomena; (b) equipment designed for use at frequencies in excess of 300 MHz, except equipment having none of the following characteristics: (i) de- signed for frequencies exceeding 470 MHz, (ii) a power output exceeding 10 watts, (iii) a base bandwidth exceeding 150 KHz, or (iv) for other than fixed service; and specially designed components, parts, accessories, and subassemblies therefor. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	250	[ 0 ]	
724(7)A Communication, detection, or tracking equipment of a kind using ultra-violet radiation, infrared radiation, or ultrasonic waves; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	100	[ 0 ]	
724(8)A Telemetry and telecontrol equipment suitable for use with aircraft or space vehicles (piloted or pilotless); and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	100	[ 0 ]	
724(9)A Panoramic radio receivers, automatic, except ancillary equipment (panoramic adaptors) for commercial receivers, with which the frequency spectrum searched does not exceed either plus or minus 20 percent of the intermediate frequency of the receiver or plus or minus 2 MHz; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	100	[ 0 ]	
724(10)A Airborne communications equipment; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	250	[ 0 ]	
724(11)A Airborne navigation and direction find- ing equipment, including specialized training or simulating equipment, as follows: (a) designed to make use of Doppler frequency phenomena, (b) utilizing the constant velocity and/or the rectilinear propagation characteristics of electromagnetic waves having frequency less than 4 times 10 <sup>14</sup> Herz (0.75 micron), (c) pulse modulated radio altimeters, (d) frequency-modulated radio altimeters having an electrical output accuracy better than plus or minus 3 feet over the whole range between zero to 100 feet, or plus or minus 3 percent above 100 feet, (e) frequency-modulated radio altimeters which have been in normal civil use for less than four years, (f) direction finding equipment operating at frequencies greater than 5 MHz, except equipment designed for search and rescue purposes provided that the receiver operates on a crystal-controlled fixed frequency of 121.5 MHz and that the determination of the DF bearing is not indepen- dent of the bearing of the aircraft and provided that the DF antenna array is designed for operation at a fixed frequency of 121.5 MHz, (g) pressurized throughout, or (h) rated for continuous operation over a range of ambient temperatures extending from below minus 55° C. to above plus 55° C.; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	250	[ 0 ]	
724(12)A Airborne radar equipment, including specialized training or simulating equipment; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	250	[ 0 ]	
724(13)A Ground and marine equipment, including specialized training and simulating equipment, for use with airborne navigation equipment, utilizing the constant velocity and/or the rectilinear propagation char- acteristics of electromagnetic waves having frequency less than 4 times 10 <sup>14</sup> Hz (0.75 micron); and specially de- signed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 611 ]	QSTVWXYZ	[ 500 ]	250	[ 0 ]	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 599.1.

<sup>1</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>2</sup> Report transmitters and broadcast type transmitters and receivers in "number."

CCL-60

724(14)—724(20)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
724(14)A Ground and marine direction finding equipment, including specialized training and simulating equipment, designed to operate at frequencies greater than 12 MHz; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	
724(15)A Ground and marine radar equipment, including specialized training or simulating equipment, having any of the following features: (a) operating at a frequency not in normal civil use in the Western World, or at a frequency of more than 10,500 MHz, (b) having a peak output power from the transmitter greater than 160 kilowatts, (c) having an 80 percent or better cumulative probability of detection of a 20 square meter target at a free space range of 50 nautical miles, (d) utilizing other than pulse modulation with a constant and/or staggered pulse repetition frequency in which the carrier frequency of the transmitted signal is not changed deliberately between groups of pulses, from pulse to pulse, or within a single pulse, (e) utilizing a Doppler technique for any purpose, other than MTI (moving target indicator) systems using a conventional double or triple pulse delay line cancellation technique, (f) including signal processing techniques which have been in normal civilian use for a period of less than four years, or (g) having been in commercial use in the Western World for a period of less than 2 years; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		611	QSTVWXYZ	500	250	0	
724(16)A Pulse modulators capable of providing electric impulses of peak power exceeding 200 kilowatts or of a duration of less than 0.1 microsecond, or with a duty cycle in excess of 0.002; and specially designed parts and accessories, n.e.c., including pulse-forming equipment and delay lines. (Specify by name.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	
724(17)A Amplifiers, as follows: (a) amplifiers designed to operate at frequencies in excess of 500 MHz; (b) tuned amplifiers having a bandwidth which exceeds 10 MHz or 10 percent of the mean frequency, whichever is less, except those specially designed for use in community television distribution systems; or (c) untuned amplifiers having a bandwidth which exceeds 10 MHz, except those having a bandwidth less than 30 MHz and a power output not exceeding 5 watts; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	
724(18)A Amplifiers, oscillators, and related equipment, n.e.c., as follows: (a) parametric amplifiers with a noise figure of merit of 5 decibels or less measured at a temperature of 17° C., (b) paramagnetic amplifiers, or (c) other amplifiers or oscillator devices which amplify or oscillate by means of stimulated electromagnetic radiation (including but not limited to Lasers, Masers, and Irasers), and any equipment, n.e.c., containing such amplifiers; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		611	QSTVWXYZ	500	250	0	
724(19)A Waveguides and components, as follows: (a) rigid and flexible waveguides and components designed for use at frequencies over 12,500 MHz, (b) waveguides having a bandwidth ratio greater than 1.5:1, (c) directional couplers having a bandwidth ratio greater than 1.5:1 and directivity over the band of 15 decibels or more, (d) rotary joints capable of transmitting more than one isolated channel or having a bandwidth greater than 5 percent of the center mean frequency, (e) magnetic, including gyromagnetic, waveguide components, (f) pressurized waveguides and specialized components therefor, or (g) transverse electromagnetic (TEM) mode devices using magnetic, including gyromagnetic, properties. (Specify by name and type number.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	
724(20)A Electronic telecommunications equipment, navigation aids, and search and detection apparatus, including radar, n.e.c., specially designed for operation at ambient temperatures below minus 170° C.;		611	QSTVWXYZ	500	250	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 376 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> The term "paramagnetic" as used in this entry refers to the sensing changes in magnetic field strength by measurement of the effects of such change in the electron spin phenomena.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Excluding Prohibitors	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
and specially designed accessories, subassemblies, parts, or components, n.e.c. (Specify by name and model number.) <sup>1</sup>							
724(21)C <sup>2</sup> Commodities not listed above, classified [ ..... ] 618 [ SZ' [ — [ — [ — [ — [ ] under Schedule B Nos. 724.1005 through 724.9985. (Also specify 7-digit Schedule B No.) (Specify by name and model number.) <sup>1</sup>							
725(1)G Commodities classified under Schedule B [ ..... ] 218 [ SZ [ — [ — [ — [ — [ ] Nos. 725.0110 through 725.0555.							
726(1)A Electro-medical infrared detection ap- [ ..... ] 621 [ QSTVWXYZ [ 500 [ 100 [ 0 [ ] paratus (specify by name); and specially designed parts, n.e.c.							
726(2)A Electro-medical and electro-therapeutic [ ..... ] 621 [ QSTVWXYZ [ 500 [ 100 [ 0 [ ] apparatus incorporating Laser, Maser, or Iraser devices (specify by name); and specially designed parts, n.e.c.							
726(3)A Flash-discharge type X-ray systems, in- [ ..... ] 621 [ QSTVWXYZ [ 0 [ 0 [ 0 [ ] R cluding tubes, except those systems or tubes hav- ing all of the following specifications: (a) peak power of 500 MW or less; (b) output voltage of 500 KV or less; and (c) pulse width of 0.2 microsecond or more; and specially designed parts, n.e.c.							
* 726(4)J Other flash discharge type X-ray tubes; [ ..... ] 623 [ QSWXYZ [ — [ — [ 100 [ ] and betatrons, X-ray producing; and parts, n.e.c.							
* 726(5)D Industrial beta, gamma, and X-ray equip- [ ..... ] 418 [ SWXYZ [ — [ — [ 100 [ ] ment capable of measuring and/or controlling the dimensions of a rolled product (including coating) during its production (specify by name); and parts, n.e.c.							
726(6)G <sup>3</sup> Commodities not listed above, classified [ ..... ] 623 [ SZ' [ — [ — [ — [ — [ ] under Schedule B Nos. 726.1000 through 726.2030. (Also specify 7-digit Schedule B No.)							
7291(1)A Electro-chemical and radioactive devices [ ..... ] 601 [ QSTVWXYZ [ 100 [ 100 [ 0 [ ] for the conversion of chemical energy to electrical energy, having any of the following characteristics: (a) fuel cells, including regenerative cells (i.e., cells for generating electric power, to which all the consumable components are supplied from outside the cells), (b) primary cells possessing a means of activation and having an open circuit storage life in the unactivated con- dition, at a temperature of 21° C., of 10 years or more, (c) primary cells capable of operating at temperatures from below minus 25° C. to above plus 55° C., including cells and cell assemblies (other than dry cells) pos- sessing self-contained heaters, or (d) power sources other than nuclear reactors based on radioactive mate- rials systems, except those having an output power of less than 0.5 watts and a total weight of more than 800 pounds and those specially designed and developed for medical use within the human body; and specially designed parts, components, and subassemblies therefor. (Specify by name and type.) <sup>1</sup>							
7291(2)G <sup>4</sup> Other primary batteries and cells; and [ ..... ] 218 [ SZ' [ — [ — [ — [ — [ ] storage batteries; and parts, n.e.c. <sup>1</sup>							
72920(1)A Flash discharge and continuous wave [ ..... ] 611 [ QSTVWXYZ [ 500 [ 250 [ 0 [ ] arc tubes specially designed for equipment pro- viding amplification or oscillation by means of stimulated electromagnetic radiation, such as Lasers, Masers, or Irasers; and specially designed parts, n.e.c.							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> See § 399.2, Interpretation 30(b), for commodities requiring a validated license for export to East Germany.

<sup>4</sup> Report transceivers in "number."

<sup>5</sup> Report betatrons in "number."

<sup>6</sup> Report batteries in "number."

<sup>7</sup> Report lamps (bulbs and tubes) in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV 8 Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
72920(2)A Flash discharge, arc, incandescent, and fluorescent lamps specially designed for (a) use in the manufacture of masks for semiconductor devices, integrated circuits, and similar electronic equipment and components, or (b) the creation of a photosensitive pattern on the surface of a semiconductor or insulating substrate; and specially designed parts, n.e.c.		218	QSTVWXYZ	0	0	0	
72920(3)A Flash discharge, arc, incandescent, and fluorescent lamps specially designed for use with cameras under Nos. 86140 and 86150 if such numbers are followed by the code letter "A"; and specially designed parts, n.e.c. <sup>1</sup>		211	QSTVWXYZ	500	25	0	
*72920(4)B Flash discharge, arc, incandescent, and fluorescent lamps specially designed for use with photographic micro-flash equipment or cameras under No. 86140 if such number is followed by the code letter "B"; and parts, n.e.c.		211	QSTVWXYZ	500	25	0	
*72920(5)J Other flash discharge, arc, incandescent, and fluorescent lamps, as follows: (a) designed for use with photographic micro-flash equipment capable of giving a flash of between 1/100,000 and 1/200,000 second duration at a minimum recurrence frequency of 200 flashes per second, or (b) designed for use with other high speed cameras capable of recording at rates in excess of 2,000 frames per second; and parts, n.e.c.		212	QSWXYZ	—	—	100	
72920(6)G Other filament lamps (bulbs and tubes) up to and including 3/4 inch base; single coil tungsten filaments; filament bulbs over 3/4 inch base, the following only: carbon filament; clear; frosted; incandescent; metal filament; photoflood; and projection; and parts, n.e.c.		218	SZ	—	—	—	
*72920(7)F Other electric lamps (bulbs and tubes) and parts, n.e.c.		218	SYZ	—	—	—	
Electron tubes and solid state semiconductor devices, and parts: <sup>2</sup>							
72930(1)A Cathode ray tubes, as follows: (a) with a resolving power of 500 lines or more per inch (20 lines per millimeter) using the shrinking raster method of measurement, (b) with writing speeds of more than 8000 kilometers per second, or (c) alpha-numeric and similar data or information display tubes in which a symbol mask within the tube can be scanned to display any of the symbols on any part of the phosphor; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
*72930(2)D Other cathode ray tubes, n.e.c., as follows: (a) with 3 or more electron guns, except 3-gun color television tubes, and (b) alpha-numeric display tubes in which the displayed position of each character is not fixed; and parts and accessories, n.e.c. (Specify my name and type number.)		618	SWXYZ	—	—	100	
*72930(3)B Other cathode ray tubes containing fused fiber optic plates in which the fiber pitch (center to center spacing) is less than 80 microns; and parts and accessories, n.e.c. (Specify by name and type number.)		612	QSTVWXYZ	500	250	0	
72930(4)A Image intensifiers (excluding standard x-ray image amplifier tubes), image converters, and electronic storage tubes, including memory transformers of radar pictures; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	100	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 99.1.

<sup>2</sup> Report lamps (bulbs and tubes) in "number."

<sup>3</sup> See Supplement No. 2 to Part 970 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> Report tubes and semiconductor devices in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
72930(5)A Ruggedized vidicon tubes, <i>except commercial standard television camera tubes</i> ; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
* 72930(6)B Other television camera tubes, <i>except commercial standard television broadcasting camera tubes</i> ; and parts and accessories, n.e.c. (Specify by name and type number.)		612	QSTVWXYZ	500	500	0	
72930(7)A Photomultiplier tubes, as follows: (a) for which the maximum sensitivity occurs at wavelengths longer than 7,500 angstrom units or shorter than 8,000 angstrom units, or (b) having an anode pulse rise time of less than 1 nanosecond; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(8)A Triggered spark-gaps having an anode delay time of 15 microseconds or less and rated for a peak current of 3,000 amperes or more. (Specify by name and type number.)	No.	611	QSTVWXYZ	100	100	0	
72930(9)A Parts and accessories specially designed for triggered spark-gaps having an anode delay time of 15 microseconds or less and rated for a peak current of 3,000 amperes or more. (Specify by name.)		611	QSTVWXYZ	500	100	0	
72930(10)A Hydrogen thyratrons (a) rated for a peak pulse power output of 2 megawatts or more, or (b) of metal-ceramic construction; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(11)A TR and anti-TR tubes, <i>except those designed for use in waveguides and operating at a peak power not exceeding 160 kilowatts and at a frequency of 10.5 GHz or less which are in normal civil use for ground or marine radar</i> ; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(12)A Electron tubes, as follows: (a) tubes rated for continuous wave operation above 1,000 MHz at the maximum rated anode dissipation; (b) tubes rated for pulse operation above 300 MHz at the maximum rated anode dissipation; (c) tubes rated for continuous-wave operation over the frequency range 300-1,000 MHz and for which under any conditions of cooling the product of the maximum rated anode dissipation (in watts) and the square of the maximum frequency (in MHz) at the maximum rated anode dissipation exceeds 10 <sup>6</sup> (when applying the above criterion to external anode tubes rated only without a radiator and rated only for free air circulation, multiply the anode dissipation by 20); (d) tubes constructed with ceramic envelopes and rated for operation above 300 MHz; (e) tubes in which the velocity of the electrons is utilized as one of the functional parameters (including, but not limited to, klystrons, travelling wave tubes, and magnetrons), <i>except fixed frequency pulsed magnetrons designed to operate at frequencies from 0.3 to 0.5 GHz with a maximum peak output power not greater than 25Kw</i> ; (f) indirectly heated tubes less than 0.288 inch in diameter; (g) tubes designed to withstand an acceleration of short duration (shock) greater than 1000 g; (h) tubes rated for operation in ambient temperatures exceeding 200° C.; or (i) vacuum tubes specially designed for use as pulse modulators for radar or for similar applications having a peak anode voltage rating of 100 Kv or more, or rated for a peak pulse power of 2 Mw or more; and specially designed parts and accessories, n.e.c. (Specify by type number.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report tubes and semiconductor devices in "number."

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
72930(13)A Photocells, as follows: (a) photo- electric cells and photoconductive cells (including phototransistors and similar cells) with a peak sensitivity at a wavelength longer than 12,000 angstrom units or shorter than 3,000 angstrom units, <i>except germanium photo devices with a peak response less than 17,500 angstrom units</i> ; or (b) phototransistors and photoconductive cells (including photodiodes) with a response time constant of 1 millisecond or less, measured at the operating temperature of the cell for which the time constant reaches a minimum; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(14)A Semiconductor devices for the direct conversion of solar energy to electrical energy (solar cells), as follows: (a) photovoltaic cells with a power output of 8 milliwatts or more per square centi- meter under 100 milliwatts per square centimeter tungsten (2800° K) illumination, or (b) all gallium arsenide photovoltaic cells, <i>except those having a power output of less than 4 milliwatts measured by the technique employed in (a) above</i> ; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(15)A Semiconductor diodes and thyristors, n.e.c., as follows: (a) diodes having a bulk mate- rial other than silicon, germanium, selenium, or copper oxide; (b) silicon and germanium diodes (including mixer, detector, frequency changing, and variable capacitance diodes, and diodes used for the direct conversion of DC to RF power), designed or rated for use at input or output frequencies greater than 300 MHz, <i>except (1) point contact diodes designed for use at input frequencies of 1 GHz or less, and (2) voltage-variable capacitance diodes designed for tuning and automatic frequency control in entertainment-type television and radio receivers and having all of the following characteristics: (i) a rated power dissipation of less than 0.5 watts at 25° C, (ii) a series inductance higher than 3 nanohenries, and (iii) a typical figure of merit Q of less than 80 measured at a reverse voltage of 4 volts and a frequency of 50 MHz</i> ; (c) silicon and germanium diodes having a rated maximum reverse recovery time of less than 30 nanoseconds; (d) tunnel diodes; and (e) thyristors having a rated turn-off time of less than 10 microseconds; and specially designed parts and access- ories, n.e.c. (Specify by type number.)		611	QSTVWXYZ	500	100	0	
72930(16)A Transistors, n.e.c., having any of the following characteristics: (a) having four or more active junctions within any single block of semiconductor material; (b) using a bulk semiconductor material other than germanium or silicon; (c) germanium types having either (i) an average $f_T$ of 40 to 240 MHz and designed to have a maximum collector dissipation greater than 150 milliwatts, or (ii) an average $f_T$ greater than 240 MHz; or (d) silicon types having any of the following characteristics: (i) an average $f_T$ of up to 500 KHz and designed to have a maximum collector dissipation greater than 5 watts, (ii) an average $f_T$ from greater than 500 KHz to 3 MHz and designed to have a maximum collector dissipation greater than 500 milliwatts, (iii) an average $f_T$ from greater than 3 MHz to 20 MHz and designed to have a collector dissipa- tion greater than 250 milliwatts, (iv) an average $f_T$ greater than 20 MHz, (v) majority carrier devices, includ- ing but not limited to, field effect transistors and metal oxide semiconductor transistors, or (vi) a modulus of the current gain in the common emitter configuration of 10 or more for collector currents of 100 microamperes or less; and specially designed parts and accessories, n.e.c. (Specify by type number). <sup>4</sup>		611	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report tubes and semiconductor devices in "number."

<sup>3</sup> When average reverse recovery time is quoted instead of maximum, the maximum may be regarded as 2 times the average. When reverse recovery time is not quoted, diodes rated for a stored charge of 100 picocoulombs or less, and diodes constructed with a rectifying deposited metal semiconductor junction or barrier, such as hot-carrier or Schottky-barrier diodes, shall be regarded as included in this subitem.

<sup>4</sup> Where the average  $f_T$  is not quoted or known, this value shall be taken as 1.5 times the minimum  $f_T$ . Where the common base  $f$  alpha is quoted instead of  $f_T$ ,  $f_T$  may be regarded as 0.8 times  $f$  alpha b.

<sup>5</sup> The maximum collector dissipation is to be defined as the continuous dissipation measured at an ambient temperature of 77° F. (25° C.) under any cooling condition.

Commodity Control List—399.1

72930(17)—7295(3)

CCL-65

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV \$ Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
72930(17)A Solid state semiconductor devices specially designed for operation at ambient temperatures below minus 170° C.; and specially designed parts and accessories, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(18)A Integrated circuits; and specially designed parts, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(29)A Quartz crystals and assemblies thereof, mounted, as follows: (a) for use as filters; or (b) for use as oscillators and (i) designed for operation over a temperature range wider than 100° C., whose upper limit is above 85° C., (ii) designed for a frequency stability of plus or minus 0.003 percent or better over the rated temperature range, (iii) mounted in thermocompression welded metal holders, or (iv) capable, when mounted, of being passed through a circular hole with a diameter of 0.42 inch (10.7 mm.). (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
72930(20)C Commodities not listed above, classified under Schedule B Nos. 729.8005 through 729.8080. (Specify by name.) (Also specify 7-digit Schedule B No.) <sup>2</sup>		618	SZ	—	—	—	
7294(1)A Twenty-four volt electrical systems with circuits shielded against radio interference, fungus decay, and water; and specially designed parts, n.e.c.		431	QSTVWXYZ	500	0	0	
7294(2)C Commodities not listed above, classified under Schedule B Nos. 729.4110 through 729.4230. (Also specify 7-digit Schedule B No.) <sup>2</sup>		438	SZ	—	—	—	
Electric or electronic type instruments and apparatus for measuring, indicating, recording, testing, checking, or controlling; and electricity supply meters. [Report parts in No. 8619.]:							
7295(1)A Cathode ray oscilloscopes having any of the following characteristics: (a) an amplifier bandwidth greater than 80 MHz (defined as the band of frequencies over which the deflection on the cathode ray tube does not fall below 70.7 percent of that at the maximum point measured with a constant input voltage to the amplifier); (b) containing or designed for use of (i) cathode ray memory tubes, or (ii) cathode ray tubes with travelling wave or distributed deflection structure or incorporating other techniques to minimize mismatch of fast phenomena signals to the deflection structure; (c) ruggedized to meet a military specification; (d) rated for operation over a range of ambient temperatures from below minus 25° C. to above plus 55° C.; or (e) having a risetime of less than 12 nanoseconds. (Specify by name and model number). <sup>2</sup>		611	QSTVWXYZ	500	500	0	
7295(2)A Electronic devices for stroboscopic analysis of a signal (i.e., sampling devices), whether subassemblies or separate units, designed to be used in conjunction with an oscilloscope to permit the analysis of recurring phenomena, which increase the capabilities of an oscilloscope to permit measurements above 80 MHz. (Specify by name and model number.)		611	QSTVWXYZ	500	100	0	
7295(3)A Recording oscillographs used as readout units for telemetering and telecontrol equipment suitable for use with space vehicles or aircraft (piloted or pilotless).		611	QSTVWXYZ	500	500	0	

<sup>2</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report tubes and semiconductor devices in "number."

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>4</sup> See § 399.2, Interpretation 30(b), for commodities requiring a validated license for export to East Germany.

Export Control Regulations

June 1, 1972

OCL-66

7295(4)—7295(12)

Commodity Control List—399.J

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Number	* Validated License Required for Country Groups Shown Below	* CIV & Value Limits for Shipments to Country Groups			* Special Licenses List
				T	V	X	
7295(4)A Radio spectrum analyzers having any of    No.   611   QSTVWXYZ    500    100    0    the following characteristics: (a) designed to operate at frequencies exceeding 1,000 MHz, (b) designed to operate at frequencies over 800 MHz and using interchangeable heads and incorporating integral sweep facilities, or (c) having a display bandwidth in excess of 12 MHz. (Specify by name and model number.)							
7295(5)A Measuring, calibrating, counting, testing,    No.   611   QSTVWXYZ    500    500    0    and/or time interval measuring equipment whether or not incorporating frequency standards, having any of the following characteristics: (a) consisting of or containing frequency measuring equipment or frequency standards designed for other than ground laboratory use with an accuracy better than 1 part in 10 <sup>7</sup> ; (b) consisting of or containing ground laboratory or frequency measuring equipment incorporating frequency standards with a stability over 24 hours of 1 part in 10 <sup>8</sup> or better; (c) designed for use at frequencies in excess of 1,000 MHz; (d) counting equipment capable of resolving at normal input levels successive input signals with less than 0.1 microsecond time difference; (e) time interval measuring equipment containing counting equipment as specified in part (d) above; or (f) testing instruments rated to maintain their specified operating data when operating over a range of ambient temperatures extending from below minus 25° C. to above plus 55° C. (Specify by name and model number.) <sup>1</sup>							
*7295(6)B Digital voltmeters possessing any of    No.   612   QSTVWXYZ    500    500    0    the following: (a) a peak conversion rate capability in excess of 50,000 complete conversions per second, (b) an accuracy in excess of 1 part in more than 10,000 of full scale, or (c) a figure of merit of 10 <sup>7</sup> or more (derived from the number of complete conversions per second divided by the accuracy). (Specify model or type number.)							
*7295(7)D Other measuring, calibrating, counting,    No.   618   SWXYZ    —    —    100    and time interval measuring equipment with any of the following characteristics: (a) frequency measuring instruments having an accuracy better than 0.00001 percent, (b) capable of resolving (at normal input levels) successive input signals with less than 0.5 microsecond time difference (including time interval measuring equipment containing such counters), (c) capable of measuring time intervals of 0.1 second or less with an error not exceeding 1 microsecond plus 0.001 percent of the interval measured, or (d) capable of counting at rates in excess of 1 MHz. (Specify by name and model number.)							
7295(8)A Instruments specially designed for: (a)    No.   611   QSTVWXYZ    500    100    0    testing communications equipment employing tropospheric, ionospheric, or meteoric scatter phenomena, or (b) testing telemetering and telecontrol equipment suitable for use with space vehicles or aircraft. (Specify by name and model number.)							
7295(9)A Instruments specially designed for test-    No.   611   QSTVWXYZ    500    100    0    ing or calibrating the direction finding, radar, or navigation equipment under No. 724 if such number is followed by the code letter "A." (Specify by name and model number.)							
7295(10)A Instruments incorporating digital com-    No.   621   QSTVWXYZ    500    500    —    puters listed under No. 714 if such number is followed by the code letter "A." (Specify by name and model number.)							
7295(11)A Infrared detection instruments, except    No.   611   QSTVWXYZ    500    100    0    industrial types and laboratory and scientific instruments for physical and chemical analysis. (Specify by name and model number.) <sup>1</sup>							
7295(12)A Instruments incorporating Laser,    No.   611   QSTVWXYZ    500    100    0    Maser, or Iraser devices for indicating, recording, measuring, controlling, or testing electronic quantities.							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.J.

<sup>2</sup> See Supplement No. 2 to Part 970 for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
* 7295(13)J Other instruments, n.e.c., designed for operation at frequencies (a) of 800 MHz or less, having any of the following characteristics: (i) incorporating a digital memory capability in excess of 2,048 bits, or (ii) employing time compressive filtering of the input signal; and (b) from 300 MHz up to and including 1,000 MHz. (Specify by name and model number.)		618	QSWXYZ	—	—	100	
7295(14)A Instruments specially designed for test- ing any of the following equipment if such equip- ment is identified by the code letter "A" after the Export Control Commodity number: (a) torquers and synchronous motors, No. 722; (b) linear and nonlinear potentiometers, No. 722; (c) semiconductor Hall field probes, No. 7299; (d) analog-to-digital and digital-to-analog converters, No. 7295; (e) synchros and resolvers and special instruments rated to have the same characteristics, induction potentiometers, induction rate (tach- ometer) generators, and servo-motors, No. 722; or (f) electronic or magnetic amplifiers specially designed for use with resolvers, No. 8619. (Specify by name and model number.)		601	QSTVWXYZ	500	500	0	
7295(15)A Instruments capable of continuous di- rect recording of sinusoidal waves at frequencies exceeding 20 KHz.		601	QSTVWXYZ	500	500	0	
7295(16)A Analog-to-digital and digital-to-analog converters, as follows: (a) electrical-input types possessing (i) a peak conversion rate capability in excess of 50,000 complete conversions per second, (ii) an ac- curacy in excess of 1 part in more than 10,000 of full scale, or (iii) a figure of merit of 10' or more (derived from the number of complete conversions per second divided by the accuracy); (b) mechanical-input types (in- cluding but not limited to shaft-position encoders and linear displacement encoders, but excluding complex servo-follower systems): (i) rotary types having an accuracy or maximum incremental accuracy better than plus or minus 1 part in 10,000 of full scale, (ii) linear displacement types having an accuracy better than plus or minus 5 microns; (c) employing solid state Hall effect; or (d) designed to operate below minus 65° C. or above plus 125° C. (Specify model or type number.)		601	QSTVWXYZ	500	100	0	
* 7295(17)B Analog-to-digital and digital-to-analog converters, mechanical-input rotary types of size 11 (1.1 inches in diameter) or smaller.		602	QSTVWXYZ	500	100	0	
* 7295(18)B Nuclear radiation detection and meas- uring instruments designed to measure neutron flux in connection with the determination of the power level of an operating nuclear reactor. <sup>1</sup>		622	QSTVWXYZ	100	100	0	
7295(19)A Nuclear radiation detection and meas- uring instruments and apparatus specially de- signed for operation at ambient temperatures below minus 170° C. <sup>1</sup>		631	QSTVWXYZ	500	100	0	
7295(20)G Other nuclear radiation detection and measuring instruments designed for: (a) detec- tion of low energy beta particles by liquid scintillation techniques, (b) detection of gamma emitting isotopes by activated crystal scintillation techniques, (c) imaging or recording the distribution of radioactively labelled pharmaceuticals in body organs, or (d) personal monitoring instruments enabling direct reading on a graduated scale, as follows: (i) dosimeters, where more than one-fourth of the total single exposure range falls between 15 and 500 rads or roentgens, or (ii) dose rate meters, where more than one-fourth of the total range falls between 1 and 80 rads or roentgens per hour, except dosimeters and dose rate meters specially designed for use with medical radiation equipment or used in food and plastics processing. <sup>1</sup>		628	SZ	—	—	—	
* 7295(21)J Other nuclear radiation detection and measuring instruments and apparatus, n.e.c. <sup>1</sup>		628	QSWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Nuclear radiation detection and measuring devices (including components, parts, accessories, attachments, and associated equipment therefor), except such devices as are in normal commercial use, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
7295(22)A Instruments for testing electro-optical devices designed to monitor relative rotation of remote surfaces under No. 8619.		621	QSTVWXYZ	500	100	0	
7295(23)A Electro-optical instruments designed to monitor relative rotation of remote surfaces.		621	QSTVWXYZ	500	100	0	
7295(24)A Mass spectrographs and mass spectrometers, as follows: (a) all multifocus types (including double focus, tandem and cycloidal); or (b) single focus types possessing a radius of curvature of 5 inches or more. (Specify by name and model number.)		411	QSTVWXYZ	500	500	0	R
* 7295(25)B Other mass spectrographs and mass spectrometers, except mass spectrometer type leak detectors. (Specify by name and model number.)		412	QSTVWXYZ	500	500	0	R
7295(26)A Electric or electronic equipment designed for testing, inspecting, or certifying magnetic tape and other recording media, including magnetic tape certifiers.		621	QSTVWXYZ	500	250	0	
7295(27)A Research laboratory cryogenic instruments and apparatus, specially designed for operation at ambient temperatures below minus 170° C.		621	QSTVWXYZ	500	100	0	
7295(28)A Laboratory instruments incorporating Laser, Maser, or Iraser devices for indicating, recording, measuring, controlling, testing, or inspecting nonelectrical quantities.		621	QSTVWXYZ	500	100	0	
7295(29)A Instruments or devices capable of automatically measuring the speed of sound <i>in situ</i> in water, and rated for differential sensitivity measurements of 1 part in 5,000 parts or better; and equipment containing such instruments or devices.		401	QSTVWXYZ	500	100	0	
7295(30)A Underwater detection and location apparatus, and specialized component instruments (for example, hydrophones), except marine depth sounders of a kind used solely for measuring the depth of water or the distance of submerged objects or fish and/or whales vertically below the apparatus. (Specify by name and model number.) <sup>1</sup>		401	QSTVWXYZ	500	100	0	
* 7295(31)B Doppler sonar navigation equipment.		402	QSTVWXYZ	500	500	0	
* 7295(32)J Other underwater detection and location apparatus, n.e.c. (Specify by name and model number.) <sup>1</sup>		408	QSWXYZ	—	—	100	
7295(33)A Magnetometers, including geophysical, having any of the following characteristics: (a) a sensitivity below 1.0 gamma, (b) a response time of less than 2 microseconds, or (c) fluxgate or paramagnetic types. (Specify by name.) <sup>2</sup>		401	QSTVWXYZ	500	250	0	
* 7295(34)B Other proton magnetometers, n.e.c.		402	QSTVWXYZ	500	250	0	
* 7295(35)B Well-logging instruments and equipment.		402	QSTVWXYZ	500	100	0	P-12
7295(36)A Seismic or seismograph instruments and equipment incorporating Laser, Maser, or Iraser devices. [Report Lasers, Masers, or Irasers exported as replacements or accessories in No. 7299.]		401	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.  
<sup>3</sup> The term "paramagnetic" as used in this entry refers to the sensing of changes in magnetic field strength by measurement of the effects of such changes in the electron spin phenomena.

Commodity Control List—399.1

7295(37)—7295(51)

CCL-69

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting License Number	* Validated Licenses Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 7295(37)B Other seismic or seismography equip- ment, <i>except</i> observatory type and <i>subsurface</i> en- gineering type. (Specify by name.) [Report gravity meters and magnetic recorders and/or reproducers in No. 8619.]	No.	402	QSTVWXYZ	500	100	0	
* 7295(38)E Other geophysical and mineral pros- pecting equipment, n.e.c.	No.	408	SXYZ	—	—	100	
7295(39)A Numerical control systems specially de- signed for controlling coordinated simultaneous (contouring and continuous path) machining movements in a machine tool in two or more axes. <sup>1</sup>	No.	421	QSTVWXYZ	500	500	0	
* 7295(40)B Electronic closed loop feed back control systems for metalworking machine tools, designed solely for positioning operations. <sup>1</sup>	No.	422	QSTVWXYZ	500	500	0	
7295(41)A Combination balancing and correcting machines designed for or equipped with numerical control systems specially designed for controlling coordinated simultaneous (contouring and continuous path) movements in two or more axes. <sup>1</sup>	No.	421	QSTVWXYZ	500	0	0	
* 7295(42)B Combination balancing and correcting machines designed for or equipped with electronic closed loop control systems designed solely for positioning operations. <sup>1</sup>	No.	422	QSTVWXYZ	500	0	0	
7295(43)A Numerical control servo-driven measur- ing or gauging machines specially designed for measuring at any point of the contour the dimensional shape and contour characteristics of two- or three-dimen- sional objects, including objects of revolution.	No.	421	QSTVWXYZ	500	500	0	
* 7295(44)D Other balancing machines or balancing and correcting machines for balancing metal parts statically, dynamically, or both.	No.	428	SWXYZ	—	—	100	
* 7295(45)D Other electronic industrial process con- trol systems. (Specify by name.)	No.	418	SWXYZ	—	—	100	
7295(46)A Instruments specially designed for measuring and checking gas turbine blades.	No.	421	QSTVWXYZ	500	100	0	
* 7295(47)D Other size measuring instruments, n.e.c.	No.	428	SWXYZ	—	—	100	
* 7295(48)B Automatic equipment for controlling the diameter or the eccentricity of extruded di- electric on wires and cables.	No.	412	QSTVWXYZ	500	100	0	
* 7295(49)D Other chemical analysis equipment, qualitative and quantitative (chemical analytical equipment utilizing chemical and/or physical separation analytical principles), n.e.c., <i>except</i> gas and liquid chro- matographs. (Specify by name.)	No.	418	SWXYZ	—	—	100	
7295(50)A Process control instruments specially designed or modified for monitoring or controlling the processing of irradiated fissionable or fertile materials or irradiated lithium.	No.	411	QSTVWXYZ	0	0	0	
* 7295(51)D Instruments or devices, n.e.c., capable of controlling the dimensions of a rolled product during its production. (Specify by name.)	No.	418	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> See § 399.2, Interpretation 7.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Priority Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Licenses List
				Y	V	X	
7295(52)A Vacuum gauges, ionization type, spe- cially designed for use with ion vacuum pumps having pumping speeds of 800 or more liters of hydrogen per second at pressures of 10 <sup>-4</sup> mm. of mercury or more.		411	QSTVWXYZ	500	0	0	P-9
* 7295(53)D Other vacuum gauges, ionization type.		418	SWXYZ	—	—	100	
7295(54)A Instruments designed for testing the types of electric arc devices under No. 7299 if such number is followed by the code letter "A." (Specify by name and model number.)		411	QSTVWXYZ	500	100	0	
7295(55)A Compasses and gyroscopic equipment, as follows: (a) gyro compasses having any of the following characteristics: (i) automatic correction for the effects on compass accuracy of changes in ship's speed, acceleration, or latitude, (ii) provision for accepting ship's data as an electrical input, (iii) provision for setting in corrections for current set and drift, (iv) utilization of accelerometer, rate gyro, rate integrating gyro, or electrolytic levels as sensing devices, or (v) provision for determining and electrically transmitting ship's level reference data (roll, pitch) in addition to own ship's course data; (b) gyro-stabilizers used for other purposes than aircraft control, except those for stabilizing an entire surface vessel; (c) automatic pilots used for other purposes than aircraft control, except marine type for surface vessels; (d) gyros with a rated free di- rectional drift rate (rated free procession) of less than 0.5 degrees (1 sigma or r.m.a.) per hour in a 1 g environ- ment; (e) gyro compasses which incorporate gyros described in (d) above or which, when operated in a gyro compass mode, have a compass error, before compensation, due to gyro drift rate of less than 1/20 of a radian (8/π degrees or 1.918 degrees approximately) at 0 degree latitude; and (f) gyros incorporating Laser, Maser, or Iraser devices. (Specify by name and model number.) <sup>1</sup>		431	QSTVWXYZ	500	100	0	
7295(56)A Accelerometers with a threshold of 0.005 g or less and/or a linearity of less than 0.25 percent of output over the operating range which are designed for use in inertial navigation systems or in guid- ance systems. <sup>1</sup>		431	QSTVWXYZ	500	100	0	
7295(57)A Inertial equipment, including inertial navigation equipment which have accuracies of less than 2 nautical miles per hour c.e.p., using gyros and/or accelerometers listed in entry No. 7295(55) or (56), and systems using such equipment. <sup>1</sup>		431	QSTVWXYZ	500	100	0	
7295(58)A Integrated flight instrument systems for aircraft which include gyro-stabilizers and/or automatic pilots. (Specify by name and model number.) <sup>1</sup>		431	QSTVWXYZ	500	100	0	
* 7295(59)B Other gyro compasses, precision acce- rometers, and precision gyroscopes, including rate and integrating gyros. (Specify by name and model or type number.) <sup>1</sup>		432	QSTVWXYZ	500	500	0	
7295(60)A Other aircraft flight and navigation instruments, except types in normal civil use. (Specify by name and model number.) (See § 399.2, Interpretation 20.) <sup>1</sup>		431	QSTVWXYZ	500	100	0	
* 7295(61)J' Other aircraft flight and navigation instruments, n.e.c. (Specify by name and model number.) <sup>1</sup>		438	QSWXYZ'	—	—	100	
7295(62)A Instruments designed for testing, cali- brating or aligning the following equipment: (a) compasses and gyroscopic equipment under Nos. 7295 and 8619 if such numbers are followed by the code letter "A," (b) aircraft integrated flight instrument systems which include gyrostabilizers and /or automatic pilots, (c) gyrostabilizers other than those for aircraft control or for stabilizing an entire surface vessel, (d) automatic		431	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 810 for commodities which require export authorization from the U.S. Department of State.

<sup>3</sup> A validated license is also required for export of these commodities to the Republic of South Africa.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
pilots other than those for aircraft or surface vessels, (e) astro compasses, (f) star trackers, and (g) accelerometers designed for use in inertial navigation systems or in guidance systems. <sup>1</sup>							
7295(63)C Instruments, n.e.c., specially designed No. for aircraft (for example, current, voltage, phase, and frequency meters, pressure, level, vacuum, flow, temperature, rotative speed, vibration, etc.). (Specify by name and model number.) <sup>2</sup>		438	SZ	—	—	—	
* 7295(64)E Other test, measuring, and checking equipment for aircraft systems and components, except radio and radar. <sup>3</sup>		438	SKYZ	—	—	100	
7295(65)A Centrifugal testing apparatus or equipment having any of the following characteristics: (a) driven by a motor or motors having a total rated horsepower greater than 400 horsepower, (b) capable of carrying a payload of 250 pounds or more, or (c) capable of exerting a centrifugal acceleration of 8 or more g on a payload of 200 pounds or more. (Specify by name.)		411	QSTVWXYZ	500	500	0	
* 7295(66)D Other centrifugal-action testing equipment. (Specify by name.)		418	SWXYZ	—	—	100	
* 7295(67)D Gear testers designed for the testing of gears of diametral pitch finer than 48. (See § 399.2, Interpretation 3.)		428	SWXYZ	—	—	100	
7295(68)A Testing devices specially designed for testing electronic assemblies produced by depositing or printing on insulating materials, or otherwise forming, <i>in situ</i> , component parts other than basic wiring.		411	QSTVWXYZ	500	0	0	
* 7295(69)B Testing devices specially designed for testing electronic assemblies produced by: (a) automatically inserting and/or soldering components on insulating panels, plates, or wafers to which wiring is applied by printing or other means, or (b) automatically or semiautomatically assembling, wiring and/or packaging mounted modular insulated panels, plates, or wafers.		412	QSTVWXYZ	500	0	0	
7295(70)A Testing and inspecting machines specially designed for the examination, testing and checking of arms, munitions, and implements of war. <sup>3</sup>		411	QSTVWXYZ	500	0	0	
7295(71)A Vibration testing equipment capable of providing a thrust greater than 2,000 pounds.		411	QSTVWXYZ	500	500	0	R
* 7295(72)B Vibration testing equipment capable of providing a thrust of 2,000 pounds or less.		412	QSTVWXYZ	500	500	0	
7295(73)A Control equipment specially designed for hot or cold isostatic presses under No. 71980 if such number is followed by the code letter "A."		421	QSTVWXYZ	50	50	0	
* 7295(74)B Control equipment specially designed for other hot or cold isostatic presses under No. 71980.		422	QSTVWXYZ	50	50	0	
7295(75)A Control equipment specially designed for presses under No. 71510 if such number is followed by the code letter "A."		421	QSTVWXYZ	500	500	0	
* 7295(76)D Control equipment specially designed for other presses under No. 71510.		428	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

CCL-72

7295(7)—72970(1)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Restrictive Numbering	* Validated License Required for Country Groups Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
7295(77)A Control instruments specially designed for environmental chambers capable of pressures of 26 Torr or less, including those which also have a capability of simulating other environments, such as radiation and temperature. (See § 399.2, Interpretation 17.)	No.	411	QSTVWXYZ	100	100	0	
7295(78)A Electrical measuring and controlling instruments and apparatus, n.e.c., specially designed for use with wind tunnels and devices under No. 71980 if such number is followed by the code letter "A."	No.	411	QSTVWXYZ	0	0	0	
* 7295(79)B Other electrical measuring and controlling instruments and apparatus, n.e.c., designed for use with other transonic, supersonic, hypersonic, and hypervelocity wind tunnels and devices under No. 71980.	No.	412	QSTVWXYZ	0	0	0	
7295(80)A Industrial instruments incorporating Laser, Maser, or Iraser devices for indicating, recording, measuring, controlling, testing, or inspecting nonelectrical quantities.	No.	411	QSTVWXYZ	500	100	0	
* 7295(81)D Industrial instruments (including sensing elements) capable of operation at, or performing tests at, temperatures below minus 180° C. <sup>1</sup>	No.	418	SWXYZ	—	—	100	
* 7295(82)J Strain gages designed for operation at temperatures of plus 600° F. and over.	No.	418	QSWXYZ	—	—	100	
7295(83)A Instruments for the automatic or semi-automatic production testing and/or sorting of electron tubes and part thereof. (Specify by name and model number.) <sup>2</sup>	No.	411	QSTVWXYZ	500	100	0	
7295(84)A Instruments for production testing and/or sorting of electron tubes, semiconductors, integrated circuits, and components or parts thereof. (Specify by name and model number.)	No.	411	QSTVWXYZ	500	100	0	
* 7295(85)B Other instruments for the automatic testing and sorting of electronic components (including magnetic cores) with respect to their electrical characteristics. (Specify by name and model number.)	No.	412	QSTVWXYZ	500	100	0	
* 7295(86)D Other industrial process indicating, recording, and/or controlling instruments, n.e.c., containing an electronic component (incorporating an electronic tube or semiconductor device), except large case potentiometric instruments (that is, those with one face dimension 6 inches or larger). (Specify by name.)	No.	418	SWXYZ	—	—	100	
* 7295(87)D Other physical properties testing and products testing and inspecting instruments or equipment, n.e.c., incorporating circuitry designed to use two or more electron tubes or semiconductor devices, except fading and weathering test equipment. (Specify by name.)	No.	418	SWXYZ	—	—	100	
7295(88)C <sup>3</sup> Commodities listed in Interpretation 80(a).	No.	618	SZ <sup>2</sup>	—	—	—	
* 7295(89)F Other instruments, n.e.c., for measuring, indicating, recording, testing, or controlling nonelectrical quantities.	No.	418	SYZ	—	—	—	
72960(1)C <sup>4</sup> Electro-mechanical handtools; and parts, n.e.c.	No.	418	SZ <sup>3</sup>	—	—	—	
* 72970(1)J Belt-type electro-static generators (Van De Graaff® machines); and parts, n.e.c.	No.	608	QSWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Trademark registered in the Patent Office of the United States.

<sup>3</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> See § 199.2, Interpretation 30(b), for commodities requiring a validated license for export to East Germany.

\* A validated license is also required for export of these commodities to East Germany.

<sup>5</sup> Report generators, generator tubes, and accelerators in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated License Required for Country Groups Shown Below	* CLV \$ Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
72970(2)A Particle accelerators capable of imparting energies of 500,000 electron volts or more, rated for a peak beam power of 500 megawatts or more; and specially designed parts and accessories, n.e.c.		621	QSTVWXYZ	500	500	0	
* 72970(3)B Other accelerators, as follows: (a) betatrons, synchrotrons, cyclotrons, synchro-cyclotrons, and linear accelerators, (b) electron accelerators capable of imparting energies in excess of 500,000 electron volts, and (c) other electronuclear machines capable of imparting energies in excess of 1,000,000 electron volts to a nuclear particle or ion; and parts, n.e.c.		622	QSTVWXYZ	500	500	0	
72970(4)A Neutron generator tubes designed for operation without external vacuum system, and utilizing electrostatic acceleration to induce a tritium deuterium nuclear reaction, and equipment containing these tubes; and specially designed parts, n.e.c.		621	QSTVWXYZ	0	0	0	R
72970(5)G Other neutron generators employing the electrostatic acceleration of ions; and parts, n.e.c.		628	SZ	—	—	—	
* 72970(6)E Other electron and proton accelerators; and parts, n.e.c.		628	SXYZ	—	—	100	
* 7299(1)J Magnets specially designed for electro-nuclear machines capable of imparting energies in excess of 1,000,000 electron volts to a nuclear particle or ion.		628	QSWXYZ	—	—	100	
7299(2)A Magnets and electrical apparatus, n.e.c., specially designed for use with cryogenic equipment capable of operating at ambient temperatures below minus 170° C.; and specially designed parts, n.e.c.		601	QSTVWXYZ	500	500	0	
7299(3)A Electro-magnetic and permanent magnet chucks, clamps, vises, and similar work holders, specially designed for metal-working machines and machine tools under No. 71510 if such number is followed by the code letter "A"; and specially designed parts, n.e.c.		421	QSTVWXYZ	500	500	0	
7299(4)A Permanent magnets made of magnetic materials having any of the characteristics set forth in § 399.2, Interpretation 6(a). (Specify metal analysis.)	Lb.	261	QSTVWXYZ	500	25	0	P-8
* 7299(5)J Other permanent magnets made of materials as defined in Interpretation 6(b) or 33.	Lb.	268	QSWXYZ	—	—	100	
* 7299(6)E Other permanent magnets, electromagnets, and electro-magnetic brakes, clutches, and appliances, n.e.c.; and parts, n.e.c.		268	SXYZ	—	—	100	
7299(7)A Induction hardening machines for turret rings and sprockets; and furnaces, welding apparatus, and other equipment specially designed for the production of arms, munitions, or implements of war; and specially designed parts, accessories, and attachments, n.e.c. (Specify by name, type, and characteristics.) <sup>2</sup>		421	QSTVWXYZ	500	100	0	
7299(8)A Electric vacuum furnaces, as follows: (a) consumable electrode vacuum arc furnaces with a capacity in excess of 5 tons; (b) skull type vacuum arc furnaces; (c) electron beam vacuum furnaces; (d) resistance vacuum furnaces designed to operate at temperatures higher than 3002° F. (1650° C.), except (i) furnaces for heat treatment, up to 12 inches x 12 inches x 12 inches (304 mm. x 304 mm. x 304 mm.)		421	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report generators, generator tubes, and accelerators in "number."

<sup>3</sup> Report permanent magnets in "pound."

<sup>4</sup> Report furnaces, ovens, heating units, and welders in "number."

Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Restrictions	Validated Licenses Required for Country Groups Shown Below	CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
<p>(28,820 cubic centimeters), designed for temperatures not higher than 4172° F. (2300° C.), (ii) furnaces for heat treatment, up to 800 cubic centimeters, designed for temperatures not higher than 4880° F. (2700° C.), and (iii) melting furnaces up to 3,200 cubic centimeters, designed for temperatures not higher than 4172° F. (2300° C.); (e) cold crucible vacuum induction furnaces designed to operate at pressures lower than 0.1 millimeter of mercury and at temperatures higher than 2012° F. (1100° C.); or (f) vacuum induction furnaces other than cold crucible, designed to operate at temperatures higher than 3002° F. (1650° C.), except furnaces with work piece spaces of 12,000 cubic centimeters or less and designed to operate not higher than 3452° F. (1900° C.), and furnaces with work piece spaces of 3,200 cubic centimeters or less with no single dimension (length, width, height, or diameter) of that space in excess of 10 inches and designed to operate at temperatures not higher than 4172° F. (2300° C.); and specially designed parts, accessories, and attachments, n.e.c. (Specify by name and characteristics.)</p>							
7299(9)A Electric furnaces specially designed or modified to be capable of purifying or processing one or more semiconductor materials, except equipment specially designed for the zone purification of germanium; and specially designed parts, accessories, and attachments, n.e.c. (Specify by name and characteristics.)			411	QSTVWXYZ	500	100	0
* 7299(10)B Electric furnaces specially designed for the production or processing of vapor deposited (pyrolytic) graphite or doped graphites, whether as standing bodies, coatings, linings, or substrates; and parts, accessories, and attachments, n.e.c. (Specify by name and characteristics.)			422	QSTVWXYZ	1,000	1,000	0
* 7299(11)D Other electric industrial melting, refining, and metal heat-treating furnaces, n.e.c.; and parts, accessories, and attachments, n.e.c. (Specify by name and characteristics.)			428	SWXYZ	—	—	100
7299(12)A Electric arc devices, n.e.c., for generating a flow of ionized gas in which the arc column is constricted, except (a) devices wherein the flow of gas is for isolation purposes only, and (b) devices of less than 80 kilowatts for cutting, welding, plating and/or spraying; equipment incorporating such devices; and specially designed parts, accessories, and controls, n.e.c.			411	QSTVWXYZ	500	500	0
7299(13)A Electron beam welders, except non-vacuum type or equipment using the "sparking" technique; and specially designed parts, accessories, and attachments, n.e.c.			411	QSTVWXYZ	500	500	0
7299(14)A Welders incorporating Lasers, Masers, or lasers; and specially designed parts, accessories, and attachments, n.e.c.			411	QSTVWXYZ	500	250	0
* 7299(15)D Electric arc devices of less than 80 kilowatts which utilize or generate a flow of ionized gas for cutting, welding, plating and/or spraying; equipment incorporating such devices; and non-vacuum electron beam welders; and parts, accessories, and attachments, n.e.c.			418	SWXYZ	—	—	100
7299(16)A Resistance welders for the manufacture of semiconductor devices and integrated circuits and parts or subassemblies therefor; and specially designed parts and accessories, n.e.c.			411	QSTVWXYZ	500	100	0
7299(17)G Commodities listed in § 399.2, Interpretation 80(a).			418	SZ	—	—	—
* 7299(18)E Commodities not listed above, classified under Schedule B Nos. 729.9205 through 729.9260. (Also specify 7-digit Schedule B No.)			428	SKYZ	—	—	100

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

† Report furnaces, ovens, heating units, and welders in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLY & Value Limits for Shipments to Country Groups			Special Provision List
				T	V	X	
7299(19)A Electrodes and electrical carbons made of artificial graphite (including pyrolytic) having a boron content of one part per million or less, the total thermal neutron absorption cross section being 5 millibarns per atom or less.		211	QSTVWXYZ	500	500	0	P-8
7299(20)A Electrodes and electrical carbons made of artificial graphite (including pyrolytic), whether or not coated or composited with other materials to give improved performance at elevated temperatures or to reduce their permeability to gases, having an apparent relative density of 1.90 and greater when compared to water at 60° F. (15.5° C.), except brush stock, special joints for electrodes, or products impregnated or composited with inorganic materials for the purpose of improving only their electrical conductivity.		211	QSTVWXYZ	500	500	0	P-8
7299(21)A Articles for electrical purposes, made of carbon or graphite fibers in any form, as defined in § 899.2, Interpretation 23. <sup>1</sup>		211	QSTVWXYZ	500	100	0	
* 7299(22)B Articles for electrical purposes, made of other carbon or graphite fibers in any form (including chopped or macerated) whether or not coated or impregnated. <sup>2</sup>		212	QSTVWXYZ	500	100	0	
* 7299(23)J Other electrodes and electrical carbons made of artificial graphite, whether or not coated or composited with other materials to improve their performance at elevated temperatures or to reduce their permeability to gases, having an apparent relative density (a) between 1.80 and 1.90 when compared to water at 60° F. (15.5° C.), or (b) between 1.70 and 1.80 when compared to water at 60° F. (15.5° C.), with a maximum particle grain size of 0.10 inch or less.		218	QSWXYZ	—	—	100	
7299(24)A Radiant energy type thermal detecting cells (for example, bolometers and thermocouple detectors) with a response time constant of less than 10 milliseconds measured at the operating temperature of the cell for which the time constant reaches a minimum. (Specify by name and model number.) <sup>3</sup>		611	QSTVWXYZ	500	100	0	
7299(25)A Electronic components, n.e.c., as follows: (a) consisting of assemblies and subassemblies constituting one or more functional circuits with a component density greater than 75 parts per cubic inch (4.576 parts per cubic centimeter), or (b) modular insulator panels (including wafers) mounting single or multiple electronic elements, except panels constructed of paper base phenolics, glass cloth melamine, glass cloth epoxy resins, or other materials with an operating temperature range not exceeding that of the aforementioned materials and which are not types defined in (a) above or which incorporate any semiconductors, diodes, transistors, etc., under No. 72850 if such number is followed by the code letter "A"; and specially designed parts, n.e.c.		611	QSTVWXYZ	500	250	0	
7299(26)A Electronic components and parts as follows: thin film memory storage or switching devices; electrical filters in which the coupling elements make use of the electromechanical properties of ferrites; devices employing gyromagnetic resonance effects, including microwave ferrite and garnet devices; and other electronic components and parts containing crystals having spinel, hexagonal, or garnet crystal structures as follows: (a) monocrystals of ferrites and garnets, synthetic; (b) single-aperture forms having (i) switching speed of 0.5 microsecond or less at the minimum field strength required for switching at 40° C., or (ii) a maximum dimension less than 45 mils (1.14 mm.); or (c) multiaperture forms having (i) switching speed of 1 microsecond or less at the minimum field strength required for switching at 40° C., (ii) a maximum dimension less than 100 mils (2.54 mm.), or (iii) having ten or more apertures. (Specify by name and characteristics.)		611	QSTVWXYZ	500	100	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Report electrodes for furnace or electrolytic use in "pound."

<sup>3</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
7299(27)A Electronic capacitors and inductive and/or capacitive components, n.e.c., designed for and/or capable of reliable performance in relation to their electrical and mechanical characteristics and maintaining their design service lifetime while operating: (a) over the whole range of ambient temperatures from below minus 45° C. to above plus 100° C., or (b) at ambient temperatures of 200° C. or higher; and specially designed parts, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	250	0	
7299(28)A Quartz crystals and assemblies thereof, mounted, for use as oscillators and (a) designed for operation over a temperature range wider than 100° C., whose upper limit is above 85° C., (b) designed for a frequency stability of plus or minus 0.003 percent or better over the rated temperature range, (c) mounted in thermocompression welded metal holders, or (d) capable of being passed through a circular hole with a diameter of 0.42 inch (10.7 mm.). (Specify by name and type number.)		611	QSTVWXYZ	500	100	0	
7299(29)A Tantalum or niobium electrolytic capacitors as follows: (a) types designed to operate permanently at temperatures over 85° C., (b) sintered types, except those having a casing made of epoxy resin or sealed with epoxy resin, or (c) foil types; and specially designed parts, n.e.c. (Specify by name and type number.)		611	QSTVWXYZ	500	250	0	
7299(30)A Alarm systems incorporating Laser devices; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)		611	QSTVWXYZ	500	500	0	
* 7299(31)D Other electronic components and parts, n.e.c., except resistor-capacitor assemblies and subassemblies and capacitors, n.e.c., of machinery and appliances, n.e.c. (Specify by name.)		618	SWXYZ	—	—	100	
7299(32)A Lasers, n.e.c.; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)		611	QSTVWXYZ	500	250	0	
* 7299(33)B Pulse generators specially designed for use with magnetic core testers; and specially designed parts, n.e.c.		412	QSTVWXYZ	500	500	0	
7299(34)A Signal generators specially designed for testing or calibrating the direction finding, radar, or navigation equipment under Nos. 724, 7295, and 8619; and specially designed parts, n.e.c. (Specify by name and model number.)		611	QSTVWXYZ	500	500	0	
7299(35)A Signal generators having any of the following characteristics: (a) designed to operate at frequencies in excess of 1,000 MHz, (b) rated to maintain their specific operating data when operating over a range of ambient temperatures extending from below minus 25° C. to above plus 65° C., or (c) designed to provide a multiplicity of alternative output frequencies controlled by a lesser number of piezo-electric crystals or an internal or external frequency standard, except equipment in which the output frequency is selected only by manual operation either on the equipment or on a remote control unit and (i) those forming multiples of a common control frequency, or (ii) those in which the output frequency is a multiple of a common frequency which is not less than 1:1,000 part of the oscillator frequency and is in steps of 1 KHz or greater; and specially designed parts, n.e.c. (Specify by name and model number.)		611	QSTVWXYZ	500	500	0	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> The range of ambient temperatures from below minus 45° C. to above plus 100° C. defines the range at which the component may still be used without derating.

<sup>2</sup> Report capacitors in "number."

<sup>3</sup> Report generators in "number."

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Preceding Number	* Validated Licenses Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
7299(36)A Electrical apparatus, n.e.c., including but not limited to signal and pulse generators, specially designed for use in production testing or sorting of electron tubes, semiconductors, integrated circuits, or components; and specially designed parts, n.e.c. (Specify by name and model number.)		411	QSTVWXYZ	500	100	0	
7299(37)A Equipment incorporating triggered spark gaps having an anode delay time of 15 microseconds or less and rated for a peak current of 8000 amperes or more; and specially designed parts and accessories, n.e.c.		611	QSTVWXYZ	500	50	0	
7299(38)A Semiconductor Hall field probes having any of the following characteristics: (a) made of indium-arsenide-phosphide (In As P), (b) coated with ceramic or ferritic materials (for example, special field probes such as tangential field probes, multipliers, modulators, recorder probes, etc.), or (c) with an open circuit sensitivity greater than 0.12 volt per ampere kilogauss; and specially designed parts and access- ories, n.e.c.		601	QSTVWXYZ	500	50	0	
7299(39)C Commodities not listed above, classified under Schedule B Nos. 729.9310 through 729.9930. (Also specify 7-digit Schedule B No.) <sup>a</sup>		608	SZ	—	—	—	

## TRANSPORT EQUIPMENT

731(1)A Containers, jacketed only, suitable for transport by rail, road, and ship, and railway cars equipped with such jacketed containers for the transportation of liquefied gases at temperatures below minus 274° F. (minus 170° C.), specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon, with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a capacity exceeding 1,200 gallons (4,542 liters) and an evaporation loss rate of less than 1.5 percent per day as deter- mined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight; or (c) liquefied gases boiling at temperatures below minus 328° F. (minus 200° C.) with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a liquid capacity of more than 250 gallons (946 liters) and an evaporation loss rate of less than 3 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight. <sup>a, b</sup>		431	QSTVWXYZ	500	500	0	
731(2)G Commodities not listed above, classified under Schedule B Nos. 731.0110 through 731.7050. (Also specify 7-digit Schedule B No.) <sup>a</sup>		438	SZ	—	—	—	
732(1)A Vehicles and truck bodies equipped with jacketed containers for the transportation of liq- uefied gases at temperatures below minus 274° F. (minus 170° C.), specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon, with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a capacity exceeding 1,200 gallons (4,542 liters) and an evaporation loss rate of less than 1.5 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sun- light; or (c) liquefied gases boiling at temperatures below minus 328° F. (minus 200° C.), with (i) multi-lami- nar type insulation under vacuum, or (ii) other types of insulation, having a liquid capacity of more than 250 gallons (946 liters) and an evaporation loss rate of less than 3 percent per day as determined at an ambient tem- perature of 75° F. (24° C.) without exposure to direct sunlight; and specially designed parts and accessories, n.e.c. <sup>3</sup>		431	QSTVWXYZ	500	0	0	

<sup>a</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>1</sup> Report generators in "number."

<sup>2</sup> Mine detectors, among other commodities, require export authorization from the U.S. Department of State. See Supplement No. 2 to Part IV.

<sup>3</sup> A jacketed container is a thermos type container that has more than one wall and is insulated by a vacuum or by insulation material.

<sup>4</sup> Armored railroad cars, among other commodities, require export authorization from U. S. Department of State. See Supplement No. 2 to Part IV.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> Report vehicles in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Reporting Number	Validated Licenses Required for Country Groups Shown Below	CLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
732(2)A Off-highway trucks and trailers which possess or are built to current military specifications differing materially from normal commercial specifications; and specially designed parts and accessories, n.e.c. (See § 399.2, Interpretation 19.) <sup>1</sup>		401	QSTVWXYZ	500	0	0	
732(2)A Truck-mounted excavator-type power cranes and shovels, full revolving, possessing or built to current military specifications differing materially from normal commercial specifications and specially designed for airborne transport; and specially designed parts and accessories, n.e.c. (See § 399.2, Interpretation 19.) <sup>1</sup>		401	QSTVWXYZ	500	0	0	
732(4)A Military searchlight trucks (trucks mounted with power-controlled searchlights designed for military use); and specially designed parts and accessories, n.e.c. (Specify by name.)		601	QSTVWXYZ	500	0	0	
732(5)M Trucks mounted with telecommunications equipment (including radar); and specially designed parts and accessories, n.e.c. [See No. 724.] (Specify mounted equipment.)							Export controls applicable to vehicles included in this entry are those which apply to the equipment mounted on the vehicle.
732(6)A Nonmilitary ground effect machines (GEMS), including surface effect machines and other air cushion vehicles, which have been in normal civil use for one year or less, <i>except piston engine powered</i> ; and specially designed parts and accessories, n.e.c. (Specify make and model.) <sup>2</sup>		431	QSTVWXYZ	500	500	0	R
* 732(7)B Other nonmilitary ground effect machines (GEMS), including other surface effect machines and air cushion vehicles; and parts and accessories, n.e.c. (Specify make and model.) <sup>2</sup>		432	QSTVWXYZ	500	500	0	R
732(8)A Pressure refuelers; and specially designed parts and accessories, n.e.c. (Specify whether military or nonmilitary.)		431	QSTVWXYZ	500	0	0	
732(7)A Passenger cars, busses, trucks, truck chassis, truck tractors, and other vehicles, n.e.c., which possess or are built to current military specifications differing materially from normal commercial specifications; and specially designed parts and accessories, n.e.c. (See § 399.2, Interpretation 19.) <sup>2</sup>		431	QSTVWXYZ	500	0	0	
* 732(8)B Special purpose vehicles specially designed or equipped for geophysical use (for example, well-logging, seismograph, etc.); and parts and accessories, n.e.c.		402	QSTVWXYZ	500	100	0	P-12
* 732(9)C Special purpose vehicles specially designed or equipped for oilfield use (for example, cementing, perforating, acidizing, fracturing, etc.); and parts and accessories, n.e.c.		408	QSVWXYZ	—	500	0	P-12
* 732(10)J Truck-mounted rotary drill rigs incorporating rotary tables with drawworks designed for an input of 900 horsepower and over; and parts and accessories, n.e.c.		408	QSWXYZ	—	—	100	
* 732(11)D Other off-highway trucks and trailers (including logging trailers), having an axle load rating of 47,500 pounds or more for any one axle assembly (whether the axle assembly consists of one or two axles); and parts and accessories, n.e.c. (Specify type and axle load rating.)		408	SWXYZ	—	—	100	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report vehicles in "number."

<sup>3</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> "Off-Highway" vehicles are interpreted, for purposes of export control, to be those which, without modification by increase of standard tire size and/or spacing, have an overall width of 88 inches as measured from outside of rear tires.

Commodity Control List—399.1

732(12)—734(1)

OCL-79

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Validated Licenses Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
			T	V	X	
* 732(12)E Other off-highway trucks and trailers (including logging trailers); and parts and accessories, n.e.c.	408	SXYZ	—	—	100	
* 732(13)J Other military passenger cars, busses, trucks, truck chassis, truck tractors, and special-purpose vehicles; and parts and accessories, n.e.c. <sup>1</sup>	438	QSWXYZ	—	—	100	
* 732(14)D Other nonmilitary busses, trucks, truck chassis, truck tractors, and special-purpose vehicles having front and rear axle drive; and parts and accessories, n.e.c.	438	SWXYZ	—	—	100	
* 732(15)E Other nonmilitary trucks, truck chassis, truck tractors, and special-purpose vehicles; and parts and accessories, n.e.c.	438	SXYZ	—	—	100	
732(16)A Parts and accessories specially designed for the following vehicles possessing or built to current military specifications differing materially from their normal commercial specification: (a) off-highway wheel tractors, and (b) tracklaying tractors. (Specify that parts and accessories are for military type.) (See § 399.2, Interpretation 19.) <sup>2</sup>	401	QSTVWXYZ	500	0	0	
732(17)C <sup>3</sup> Commodities not listed above, classified under Schedule B Nos. 732.0110 through 732.9200. (Also specify 7-digit Schedule B No.) <sup>4</sup>	438	SZ <sup>5</sup>	—	—	—	
733(1)A Trailers or other vehicles, n.e.c., equipped with jacketed containers for the transportation of liquefied gases at temperatures below minus 274° F. (minus 170° C.), specially designed for (a) liquid fluorine; (b) liquid oxygen, nitrogen, or argon, with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a capacity exceeding 1,200 gallons (4,542 liters) and an evaporation loss rate of less than 1.5 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight; or (c) liquefied gases boiling at temperatures below minus 328° F. (minus 200° C.) with (i) multi-laminar type insulation under vacuum, or (ii) other types of insulation, having a liquid capacity of more than 250 gallons (946 liters) and an evaporation loss rate of less than 3 percent per day as determined at an ambient temperature of 75° F. (24° C.) without exposure to direct sunlight. <sup>6,7</sup>	431	QSTVWXYZ	500	0	0	
* 733(2)J Other military trailers, n.e.c.; and parts, n.e.c. (See § 399.2, Interpretation 19.) <sup>8</sup>	438	QSWXYZ	—	—	100	
* 733(2)E Other nonmilitary commercial trailers; and parts, n.e.c.	438	SXYZ	—	—	100	
733(4)C <sup>3</sup> Commodities not listed above, classified under Schedule B Nos. 733.1100 through 733.4000. (Also specify 7-digit Schedule B No.)	218	SZ <sup>5</sup>	—	—	—	
734(1)A Parts and accessories, including parts for propellers, landing gear, and power transmissions, specially designed for helicopters, aircraft, airships, and balloons and wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. <sup>9</sup>	431	QSTVWXYZ	500	500	0	P-2

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report vehicles in "number."

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> See § 399.2, Interpretation 31, for commodities requiring a validated license for export to East Germany.

<sup>4</sup> A jacketed container is a thermos type container that has more than one wall and is insulated by a vacuum or by insulation material.

<sup>5</sup> Helicopters and other aircraft designed, modified, or equipped for military purposes, and specially designed parts therefor, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370 and § 399.2, Interpretation 20.

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734(2)—735(3)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Reporting Number	* Validated Licenses Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 734(2)B Military aircraft, demilitarized (not specifically equipped or modified for military operations), the following only: (a) cargo, "C-45 through C-118" inclusive, and "C-121"; (b) trainers, bearing a "T" designation and using piston engines; (c) utility, bearing a "U" designation and using piston engines; (d) liaison, bearing an "L" designation; and (e) observation, bearing an "O" designation and using piston engines. <sup>1</sup>		432	QSTVWXYZ	500	500	0	R
734(3)A Nonmilitary helicopters, as follows: (a) over 10,000 pounds empty weight, or (b) 10,000 pounds or less empty weight of types which have been in normal civil use for one year or less, except piston engine powered. (Specify make and model). <sup>2</sup>		431	QSTVWXYZ	500	500	0	R
734(4)A Nonmilitary aircraft, heavier-than-air, of types which have been in normal civil use for one year or less, except piston engine powered. (Specify make and model). <sup>3</sup>		431	QSTVWXYZ	500	500	0	R
734(5)A Power transmission systems for nonmilitary helicopters over 10,000 pounds empty weight; and specially designed parts. (Specify make and model). <sup>3</sup>		431	QSTVWXYZ	500	500	0	P-2
734(6)A Parts and accessories, n.e.c., including rotors, rotor blades, and landing gear assemblies, specially designed for nonmilitary helicopters: (a) over 10,000 pounds empty weight, and (b) 10,000 pounds or less empty weight of types which have been in normal civil use for one year or less, except piston engine powered; and parts. (Specify make and model of helicopter). <sup>3</sup>		431	QSTVWXYZ	500	500	0	P-2
734(7)A Parts and accessories, n.e.c., specially designed for aircraft, heavier-than-air, which have been in normal civil use for one year or less, except piston engine powered, the following only: (a) fuselages or hulls, (b) wings, wing panels and sections, (c) rudders, elevators and stabilizers, or (d) landing gear assemblies; and parts, n.e.c. (Specify make and model). <sup>3</sup>		431	QSTVWXYZ	500	500	0	P-2
734(8)C Nonmilitary airships, balloons, gliders, sailplanes, and other non-powered aircraft, n.e.c.; constant speed propellers; fixed pitch and ground-adjustable propellers for nonmilitary aircraft; and rotors and rotor blades for non-powered rotorcraft, n.e.c.; and parts and accessories, n.e.c. <sup>4</sup>		438	SZ	—	—	—	
* 734(9)B Parts and accessories, n.e.c., including propellers and landing gear, specially designed for demilitarized observation aircraft bearing an "O" designation and using piston engines.		432	QSTVWXYZ	500	0	0	
* 734(10)C Other nonmilitary helicopters and aircraft; and other parts and accessories, n.e.c. (Specify make and model). <sup>3</sup>		432	QSVWXYZ	—	1,000	0	P-2
* 735(1)D Ships, boats, and other vessels, for breaking up (for scrapping). <sup>5</sup>		268	SWXYZ	—	—	100	
* 735(2)J Pontoons, metal, for supporting temporary bridges. <sup>6</sup>		268	QSWXYZ	—	—	100	
735(3)G Buoys, all metals; pontoons for lines, iron or steel; and fiber glass swimming pools, floating.		268	SZ	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Helicopters and other aircraft designed, modified, or equipped for military purposes, and specially designed parts therefor, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870 and § 399.2, Interpretation 30.

<sup>3</sup> Empty weight of aircraft includes the structure, engines, fixed equipment, and all furnishings, but does not include fuel or payload.

<sup>4</sup> Export authorization is required from the U. S. Department of State for nonexpansive balloons of 3,000 cubic feet capacity or over, except types in normal sporting use. See Supplement No. 2 to Part 870.

<sup>5</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>6</sup> See § 870.10(f) for information concerning export requirements for watercraft, including offshore drilling platforms, requiring export authorization from the U. S. Maritime Administration.

<sup>7</sup> Report vessels for scrapping in "short ton."

<sup>8</sup> A validated license is also required for export of these commodities to East Germany.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	

- \* 735(4)E Other floating structures, other than vessels, n.e.c.<sup>1</sup> || 268 || SKYZ || — || — || 100 ||
- 736(1)M Parts and accessories specifically ordered and invoiced as original equipment previously shipped. || Export controls applicable to each commodity exported under this classification are those which apply to the commodity when exported under its individual Export Control Commodity Number. ||

SECTION 8—MISCELLANEOUS MANUFACTURED ARTICLES

- 81(1)C<sup>2</sup> Sanitary, plumbing, heating, and light fixtures and fittings classified under Schedule B. Nos. 812.1010 through 812.4320. || 218 || SZ<sup>3</sup> || — || — || — ||
- 82(1)C<sup>2</sup> Furniture classified under Schedule B. Nos. 821.0200 through 821.0885.<sup>4</sup> || 218 || SZ<sup>3</sup> || — || — || — ||
- 83(1)C<sup>2</sup> Travel goods, handbags, and other personal goods classified under Schedule B. Nos. 831.0010 through 831.0050.<sup>4</sup> || 218 || SZ<sup>3</sup> || — || — || — ||
- 84(1)C<sup>2</sup> Clothing and accessories classified under Schedule B. Nos. 841.1103 through 842.0200.<sup>4</sup> || 218 || SZ<sup>3</sup> || — || — || — ||
- 85(1)C<sup>2</sup> Footwear classified under Schedule B. Nos. 851.0010 through 851.0090.<sup>4</sup> || Pr. || 218 || SZ<sup>3</sup> || — || — || — ||

PROFESSIONAL, SCIENTIFIC, AND CONTROLLING INSTRUMENTS;  
PHOTOGRAPHIC AND OPTICAL GOODS, WATCHES, AND CLOCKS

- 8611(1)A Optical elements as follows: (a) specially designed for infrared or ultraviolet communications or detection equipment, or (b) specially designed for equipment providing amplification or oscillation by means of stimulated electromagnetic radiation, such as Lasers, Masers, or Iasers. (Specify by name and type).<sup>5</sup> || No. || 611 || QSTVWXYZ || 500 || 50 || 0 ||
- 8611(2)A Optical elements of monocrystalline silicon, or silicon with a purity of 99.99 percent or higher. (Specify weight.) || No. || 241 || QSTVWXYZ || 500 || 0 || 0 ||
- \* 8611(3)D Optical elements of silicon with a purity of 99.9 percent up to but not including 99.99 percent silicon. (Specify weight.) || No. || 248 || SWXYZ || — || — || 100 ||
- 8611(4)A Nonflexible fused fiber optic plates or bundles having all the following characteristics: (a) fiber pitch (center to center spacing) of less than 15 microns, (b) a light-absorbing medium surrounding each fiber, or interstitially placed between fibers, and (c) a diameter greater than 1/4 inch. || No. || 621 || QSTVWXYZ || 500 || 100 || 0 ||
- 8611(5)A Lenses and prisms specially designed for high-speed cameras and streak cameras under Nos. 86140 and 86150 if such numbers are followed by the code letter "A."<sup>6</sup> || No. || 211 || QSTVWXYZ || 100 || 100 || 0 ||

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> See § 370.10(f) for information concerning export requirements for watercraft, including offshore drilling platforms, requiring export authorization from the U.S. Maritime Administration.  
<sup>3</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.  
<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.  
<sup>5</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.  
<sup>6</sup> See § 370.10(i) for commodities which require export authorization from the U. S. Department of the Interior.

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8611(6)—86140(5)

Commodity Control List—399.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Exporting Country Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Restrictions List
				T	V	X	
*8611(6) Lenses and other optical elements for other high-speed cameras capable of recording at rates in excess of 2,000 frames per second.		218	QSWXYZ	—	—	100	
8611(7)A Electro-optical devices designed to monitor relative rotation of remote surfaces.		621	QSTVWXYZ	500	100	0	
8611(8)C Commodities not listed above, classified under Schedule B Nos. 861.1110 through 861.1220. (Also specify 7-digit Schedule B No.) <sup>1</sup>		628	SZ	—	—	—	
8612(1)C <sup>2</sup> Commodities classified under Schedule B Nos. 861.2110 through 861.2240. (Also specify 7-digit Schedule B No.) <sup>1</sup>		628	SZ <sup>3</sup>	—	—	—	
8613(1)A Ion microscopes having a resolving power better than 10 angstrom units; and specially designed parts and accessories, n.e.c.		621	QSTVWXYZ	500	100	0	
8613(2)A Electro-optical infrared detecting or viewing equipment, n.e.c.; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		611	QSTVWXYZ	500	100	0	
8613(3)A Power-controlled searchlights designed for military use; and specially designed parts and accessories, n.e.c. (Specify by name.)		601	QSTVWXYZ	500	0	0	
8613(4)C <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 861.8900 through 861.8980. (Also specify 7-digit Schedule B No.) <sup>1</sup>		628	SZ <sup>3</sup>	—	—	—	
86140(1)A Streak cameras having writing speeds of 8 mm. per microsecond and above, capable of recording events which are not initiated by the camera mechanism; and specially designed parts and accessories, n.e.c. <sup>4</sup>		211	QSTVWXYZ	100	100	0	
*86140(2)B Streak cameras capable of recording events which are not initiated by the camera mechanism, having (a) writing speeds of less than 8 mm. per microsecond, or (b) a time resolution of 10 nanoseconds or less; and parts and accessories, n.e.c. <sup>4</sup>		212	QSTVWXYZ	500	500	0	
86140(3)A High speed recording cameras in which the film does not move, and which are capable of recording at rates exceeding 250,000 frames per second for the full framing height of standard 85 mm. wide film, or proportionately higher rates for lesser frame heights, or proportionately lower rates for greater frame heights; and specially designed parts and accessories, n.e.c. <sup>4</sup>		211	QSTVWXYZ	100	100	0	
86140(4)A High speed cameras having shutter speeds of less than one microsecond per operation; and specially designed parts and accessories, n.e.c.		211	QSTVWXYZ	100	100	0	
86140(5)A Cameras incorporating image converters; and specially designed parts and accessories, n.e.c.		211	QSTVWXYZ	100	100	0	

<sup>0</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>2</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>4</sup> Report searchlights and spotlights in "number."

<sup>5</sup> Streak cameras are cameras designed to record the intensity of a light source as a function of time and of a single spatial dimension by moving the image of the source along the film in a single direction.

<sup>6</sup> Report cameras in "number."

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Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Prescribed Restrictions	* Validated License Required for Country Group, Shown Below	* CLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
86140(6)A Cameras specially designed for the production of electronic printed circuits; and specially designed parts and accessories.		411	QSTVWXYZ	500	0	0	
86140(7)A Cameras, flash, and lighting equipment specially designed for (a) use in the manufacture of masks for semiconductor devices, integrated circuits, and similar electronic equipment and compounds, or (b) the creation of a photosensitive pattern on the surface of a semiconductor or insulating substrate; and specially designed parts and accessories.		411	QSTVWXYZ	500	0	0	
* 86140(8)B Photographic micro-flash equipment capable of giving a flash of 1/200,000 second or shorter duration at a minimum recurrence frequency of 200 flashes per second; and parts and accessories, n.e.c. (Specify by name.) <sup>1</sup>		212	QSTVWXYZ	500	25	0	
* 86140(9)J Other high speed cameras capable of recording at rates in excess of 2,000 frames per second; and photographic micro-flash equipment capable of giving a flash of between 1/100,000 and 1/200,000 second duration, at a minimum recurrence frequency of 200 flashes per second; and parts and accessories, n.e.c. (Specify by name.) <sup>2</sup>		218	QSWXYZ	—	—	100	
86140(10)G Other photographic cameras (other than motion picture) and flashlight apparatus; and parts, n.e.c. <sup>3</sup>		218	SZ	—	—	—	
86150(1)A High speed recording cameras (cine) in which the film is continuously advanced and which are capable of recording at rates greater than 3,000 frames per second at full framing heights of standard 35 mm. wide film or proportionately higher rates for lesser frame heights, or proportionately lower rates for greater frame heights; and specially designed parts and accessories, n.e.c. <sup>4</sup>		211	QSTVWXYZ	500	500	0	
86150(2)A High speed recording cameras (cine) in which the film is intermittently advanced, being automatically locked in place for each frame, and which are capable of recording at the following rates for full frame heights: (a) greater than 250 frames per second for 16 mm. wide film; (b) greater than 180 frames per second for 35 mm. wide film; or (c) greater than 50 frames per second for 70 mm. wide film; and specially designed parts and accessories, n.e.c.		211	QSTVWXYZ	500	500	0	
* 86150(3)J Other high speed motion picture cameras capable of recording at rates in excess of 2,000 frames per second; and parts and accessories, n.e.c.		218	QSWXYZ	—	—	100	
86150(4)G Other motion picture cameras, 16 mm. or under, except aerial cameras, and parts therefor; motion picture projectors, silent only, 16 mm. or under, and parts therefor; and motion picture camera tripods and stands, excluding dollies. <sup>5</sup>		218	SZ	—	—	—	
* 86150(5)F Other motion picture cameras, motion picture projectors, and motion picture sound recording and reproducing equipment; and parts, n.e.c. <sup>6</sup>		218	SYZ	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report cameras in "number."

<sup>3</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>4</sup> Cameras designed for use in space vehicles, all aerial cameras and military cameras, and specifically designed components, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

<sup>5</sup> Report cameras and projectors in "number."

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8616(1)—8618(2)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Parceling Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	

- 8616(1)A Recording and/or reproducing equip- || ..... || 621 || QSTVWXYZ || 500 || 250 || 0 ||  
ment employing electron beam(s) operating in a vacuum, and/or those employing laser produced light beams that produce patterns or images directly on the recording surface; and specialized equipment for image development; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)
- 8616(2)G Still picture photographic projectors, || ..... || 218 || SZ || — || — || — ||  
enlargers, and reducers, and parts, n.e.c.; photo scales (enlarger parts); developing, printing, fixing, or washing tanks or machines for motion picture film; reels for motion picture film; microfilming equipment; photocopying equipment, as follows: office and document-copying machines, including but not limited to equipment employing the silver process, transfer process, thermographic process, and the electrophotographic or electrostatic process; and still picture equipment, as follows: analyzers, cutting boards, developing equipment, dry mounting presses, hangers, glass photo baths, print rollers, printing frames and masks, and shading machines; and parts therefor, n.e.c.\*
- \* 8616(3)F Other still picture, motion picture, pho- || ..... || 218 || SYZ || — || — || — ||  
tographic, and photocopying equipment, n.e.c. and parts, n.e.c.\*
- 8617(1)A Surgical and medical apparatus wholly || ..... || 231 || QSTVWXYZ || 500 || 500 || 0 || P-3  
made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by name.)
- 8617(2)A Closed and semi-closed circuit (rebreath- || ..... || 401 || QSTVWXYZ || 500 || 100 || 0 ||  
ing) apparatus for diving and underwater swimming (scuba); and specially designed components therefor, n.e.c.\*
- 8617(3)C' Commodities not listed above classified || ..... || 628 || SZ' || — || — || — ||  
under Schedule B Nos. 861.7105 through 861.7220.  
(Also specify 7-digit Schedule B No.)<sup>a</sup>  
Gas or liquid supply meters, revolution counters, speedometers, and similar counting devices, not electrically or electronically operated; and stroboscopes, all types [Report electric or electronic in No. 7295; and parts in No. 8619]:
- \* 8618(1)B Revolution counters and similar count- || No. || 412 || QSTVWXYZ || 0 || 0 || 0 ||  
ing devices specially designed for use with transonic, supersonic, hypersonic, and hypervelocity wind tunnels and devices for simulating environments at Mach 0.8 and above.
- 8618(2)C' Commodities not listed above, classified || ..... || 418 || SZ' || — || — || — ||  
under Schedule B Nos. 861.8110 through 861.8240.  
(Also specify 7-digit Schedule B No.)  
Instruments, machines, and appliances, not electrically or electronically operated; and parts, n.e.c.; and parts and accessories, n.e.c., for meters and instruments listed under Nos. 7295 and 8618 [Report electric or electronic instruments in No. 7295]:

<sup>a</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Report cameras and projectors in "number."

<sup>2</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>4</sup> Self-contained diving and underwater breathing apparatus designed for a military purpose, and specially designed components therefor, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

<sup>5</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.

<sup>6</sup> Gas masks, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

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Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Page Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
8619(1)A Cryogenic equipment designed for operation at ambient temperatures below minus 170° C. and (a) designed for use in marine application, or (b) ruggedized for mobile ground use, or (c) designed to maintain operating temperatures for electrical, magnetic, or electronic equipment or components; and specially designed parts, accessories, subassemblies, or components, n.e.c. <sup>1</sup>		621	QSTVWXYZ	500	250	0	
8619(2)A Compasses and gyroscopic equipment as follows: (a) gyro compasses having any of the following characteristics: (i) automatic correction for the effects on compass accuracy of changes in ship's speed, acceleration, or latitude, (ii) provision for accepting ship's data as an electrical input, (iii) provision for setting in corrections for current set and drift, (iv) utilization of accelerometer, rate gyro, rate integrating gyros, or electrolytic levels as sensing devices, or (v) provision for determining and electrically transmitting ship's level reference data (roll, pitch) in addition to own ship's course data; (b) gyro-stabilizers used for other purposes than aircraft control, except those for stabilizing an entire surface vessel; (c) automatic pilots used for other purposes than aircraft control, except marine type for surface vessels; (d) gyros with a rated free directional drift rate (rated free precession) of less than 0.5 degrees (1 sigma or r.m.s.) per hour in a 1 g environment; and (e) gyro compasses which incorporate gyros described in (d) above or which, when operated in a gyro compass mode, have a compass error, before compensation, due to gyro drift rate of less than 1/40 of a radian (6/π degrees or 1.918 degrees approximately) at 0 degree latitude; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>2</sup>		431	QSTVWXYZ	500	100	0	
8619(3)A Accelerometers with a threshold of 0.005 g or less and/or a linearity of less than 0.25 percent of output over the operating range which are designed for use in inertial navigation systems or in guidance systems. <sup>2</sup>		431	QSTVWXYZ	500	100	0	
8619(4)A Inertial equipment, including inertial navigation equipment, which have accuracies of less than 2 nautical miles per hour c.e.p., using gyros and/or accelerometers listed in entry No. 8619(2) or (3), and systems using such equipment. <sup>2</sup>		431	QSTVWXYZ	500	100	0	
8619(5)A Integrated flight instrument systems for aircraft which include gyro-stabilizers and/or automatic pilots; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>2</sup>		431	QSTVWXYZ	500	100	0	
* 8619(6)B Other precision gyroscopes, including rate and integrating gyros and other precision accelerometers; and parts and accessories, n.e.c. (Specify by name and model or type number.) <sup>2</sup>		432	QSTVWXYZ	500	100	0	
* 8619(7)B Other gyro compasses; and parts and accessories, n.e.c. (Specify by name and model number.) <sup>2</sup>		432	QSTVWXYZ	500	500	0	
8619(8)A Other aircraft flight and navigation instruments, except types in normal civil use; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) (See § 399.2, Interpretation 20.) <sup>2</sup>		431	QSTVWXYZ	500	100	0	
* 8619(9)J' Other aircraft flight and navigation instruments, n.e.c.; and parts and accessories, n.e.c. (Specify by name and model number.) <sup>2</sup>		438	QSWXYZ'	—	—	100	
* 8619(10)D' Fluidic-based aircraft control devices; and parts and accessories, n.e.c. (Specify by name and model number.) <sup>2</sup>		438	SWXYZ'	—	—	100	

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> Cryogenic equipment for airborne or space application, among other commodities, requires export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U.S. Department of State.

<sup>3</sup> A validated license is also required for export of these commodities to the Republic of South Africa.

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8619(11)—8619(24)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated Licenses Required for Country Groups Shows Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
8619(11)G Other aircraft engine instruments for measuring, checking, or automatically controlling the flow, pressure, or other variables of liquids, gases, or temperature; aircraft type hydrometers and similar instruments; and aircraft thermometers, pyrometers, barometers, hygrometers, psychrometers, and any combination of these; and parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		438	SZ	—	—	—	
* 8619(12)F Marine and navigation equipment, as follows: automatic pilots, magnetic compasses, rudder position indicators, speed indicators and recorders, and taffrail logs; and parts, n.e.c.		438	SYZ	—	—	—	
8619(13)A Electro-optical instruments designed to monitor relative rotation of remote surfaces; and specially designed parts and accessories, n.e.c.		631	QSTVWXYZ	500	100	0	
8619(14)A Instruments, appliances, and machines specially designed for use with wind tunnels and devices under No. 71980 if such number is followed by the code letter "A"; and specially designed parts, n.e.c.		411	QSTVWXYZ	0	0	0	
* 8619(15)B Other instruments, appliances, and machines designed for use with other transonic, supersonic, hypersonic, and hypervelocity wind tunnels and devices under No. 71980; and parts, n.e.c.		412	QSTVWXYZ	0	0	0	
8619(16)A Gravity meters (gravimeters), designed or modified for airborne or marine use (specify by name); and specially designed parts and accessories, n.e.c.		401	QSTVWXYZ	500	100	0	
* 8619(17)J Other gravity meters (gravimeters) (specify by name); and parts and accessories, n.e.c.		408	QSWXYZ	—	—	100	
8619(18)A Surveying and engineering instruments incorporating Lasers, Masers, or Irasers; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>1</sup>		621	QSTVWXYZ	500	250	0	
8619(19)A Range finders specially designed for cameras under Nos. 86140 and 86150 if such numbers are followed by the code letter "A"; and specially designed parts and accessories, n.e.c. <sup>1</sup>		211	QSTVWXYZ	500	25	0	
8619(20)A Instruments specially designed for production testing and sorting of electron tubes, semiconductor devices, integrated circuits, and components; and specially designed parts, n.e.c.		411	QSTVWXYZ	500	0	0	
* 8619(21)D Comparators; dividers; gear checkers (comparators); and other machinists' precision measuring tools, except gear testers; and parts, n.e.c.		428	SWXYZ	—	—	100	
* 8619(22)E Test, measuring, and checking instruments, appliances, and machines for aircraft systems and components, n.e.c.; and parts, n.e.c.		438	SKYZ	—	—	100	
8619(23)A Laser demonstration kits, educational.		611	QSTVWXYZ	500	250	0	
* 8619(24)F Other technical models for demonstration. [Report aircraft training devices and flight simulators in No. 899.] <sup>1, 2, 3</sup>		218	SYZ	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> Report range finders in "number."

<sup>4</sup> A validated license may also be required for other destinations if this commodity contains technical data. See Part 879.

<sup>5</sup> See § 870.10(f) for commodities which require export authorization from the U. S. Maritime Administration.

<sup>6</sup> See § 870.10(e) for commodities which require export authorization from the U. S. Atomic Energy Commission.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Prescribing Country	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Restrictions List
				T	V	X	
8619(25)A Testing and inspecting machines and equipment specially designed for the examination, testing, and checking of arms, munitions, and implements of war; and specially designed parts, n.e.c. <sup>1</sup>		411	QSTVWXYZ	500	0	0	
* 8619(26)B Vibration testing equipment, mechanical type; and parts, n.e.c.		412	QSTVWXYZ	500	500	0	
8619(27)A Testing devices specially designed for electronic assemblies produced by depositing or printing on insulated panels, plates, or wafers or otherwise forming <i>in situ</i> component parts other than basic wiring; and specially designed parts, n.e.c.		411	QSTVWXYZ	500	0	0	
* 8619(28)B Testing devices specially designed for testing electronic assemblies produced by: (a) automatically inserting and/or soldering components on insulating panels, plates, or wafers to which wiring is applied by printing or other means, or (b) automatically or semiautomatically assembling, wiring, and/or packaging mounted modular insulated panels, plates, or wafers; and parts, n.e.c.		412	QSTVWXYZ	500	0	0	
8619(29)A Testing and inspecting equipment specially designed for use in the production of types of electron tubes and semi-conductor devices or parts and components therefor under No. 72980 <i>if such number is followed by the code letter "A"</i> ; and specially designed parts, n.e.c. (Specify by name.)		411	QSTVWXYZ	500	0	0	
* 8619(30)B Other testing and inspecting equipment specially designed for use in the production of electron tubes and semi-conductor devices or parts and components therefor; and parts, n.e.c. (Specify by name.)		412	QSTVWXYZ	500	0	0	
8619(31)A Control equipment specially designed for hot or cold isostatic presses under No. 71980 <i>if such number is followed by the code letter "A"</i> ; and specially designed parts, n.e.c.		421	QSTVWXYZ	50	50	0	
* 8619(32)B Control equipment specially designed for other hot or cold isostatic presses under No. 71980; and parts, n.e.c.		422	QSTVWXYZ	50	50	0	
8619(33)A Control instruments specially designed for environmental chambers capable of pressures of 26 Torr or less, including those which also have a capability of simulating other environments, such as radiation and temperature; and specially designed parts, n.e.c. (See § 399.2, Interpretation 17.)		411	QSTVWXYZ	100	100	0	
8619(34)A Instruments or devices capable of automatically measuring the speed of sound <i>in situ</i> in water, and rated for differential sensitivity measurements of 1 part in 5,000 parts or better, and equipment containing such instruments or devices; and specially designed parts, n.e.c.		401	QSTVWXYZ	500	100	0	
8619(35)A Mass spectrographs and mass spectrometers, as follows: (a) all multifocus types (including double focus, tandem, and cycloidal), or (b) single focus types possessing a radius of curvature of 5 inches or more; and specially designed parts, n.e.c. (Specify by name and model number.)		411	QSTVWXYZ	500	500	0	R
* 8619(36)B Other mass spectrographs and mass spectrometers, <i>except mass spectrometer-type leak detectors</i> ; and parts, n.e.c. (Specify by name and model number.)		412	QSTVWXYZ	500	500	0	R
8619(37)A Centrifugal testing apparatus or equipment having any of the following character-		411	QSTVWXYZ	500	500	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Report instruments in "number."

<sup>3</sup> Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Processing Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
istics: (a) driven by a motor or motors having a total rated horsepower greater than 400 horsepower, (b) capable of carrying a payload of 250 pounds or more, or (c) capable of exerting a centrifugal acceleration of 8 or more g on a payload of 200 pounds or more; and specially designed parts, n.e.c. (Specify by name.)							
*8619(38)D Other chemical analysis equipment, [ . . . . ] [ 418 ] [ SWXYZ ] [ — ] [ — ] [ 100 ] qualitative and quantitative (chemical analytical equipment utilizing chemical and/or physical separation analytical principles), <i>except spectrum measuring instruments, optical; densitometers; gas and liquid chromatographs; and other laboratory instruments for physical or chemical analysis, checking viscosity, porosity, expansion, surface tension, etc., or for measuring or checking quantities of heat, light, or sound, and parts therefor; and other centrifugal-action testing equipment; and parts, n.e.c. (Specify by name.)</i>							
*8619(39)E Other instruments, n.e.c., as follows: [ . . . . ] [ 418 ] [ SKYZ ] [ — ] [ — ] [ 100 ] (a) mechanical appliances for testing physical properties of industrial materials; (b) instruments for measurement, display, transmission, or control of temperature, pressure, or other variables, <i>except instruments, n.e.c., for watercraft, motor vehicles, and other vehicles;</i> (c) instruments for physical or chemical analysis; (d) instruments for checking viscosity, porosity, expansion, surface tension, and such; and (e) instruments for measuring or checking quantities of heat, light, or sound, <i>except photographic exposure light meters, and parts therefor; and parts, n.e.c.<sup>1</sup></i>							
8619(40)A Magnetic recorders and/or reproducers [ . . . . ] [ 401 ] [ QSTVWXYZ ] [ 500 ] [ 100 ] [ 0 ] specially designed for seismographs; and specially designed parts, n.e.c. [Report magnetic tape in No. 891.]							
8619(41)A Magnetic instrumentation recorders [ . . . . ] [ 601 ] [ QSTVWXYZ ] [ 500 ] [ 250 ] [ 0 ] and/or reproducers; and specially designed parts, n.e.c. (Specify by name and model number.) [Report magnetic tape and other magnetic recording media in No. 891.]							
8619(42)A Parts and accessories wholly made of [ . . . . ] [ 241 ] [ QSTVWXYZ ] [ 500 ] [ 500 ] [ 0 ] P-3 fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by name and type.)							
* 8619(43)D Parts and accessories wholly made of [ . . . . ] [ 248 ] [ SWXYZ ] [ — ] [ — ] [ 100 ] other fluorocarbon polymers or copolymers. (Specify by name and type.)							
8619(44)A Radiant energy type thermal detecting [ . . . . ] [ 611 ] [ QSTVWXYZ ] [ 500 ] [ 100 ] [ 0 ] cells (for example, bolometers and thermocouple detectors) with a response time constant of less than 10 milliseconds measured at the operating temperature of the cell for which the time constant reaches a minimum. (Specify by name and model number.)							
8619(45)A Direct current amplifiers, amplifying [ . . . . ] [ 611 ] [ QSTVWXYZ ] [ 500 ] [ 100 ] [ 0 ] by whatever means, having a noise level (referred to the input circuit) of 10 <sup>-12</sup> watts or less and/or a zero drift in 1 hour corresponding to a change in input power of 10 <sup>-12</sup> watts or less; and specially designed parts, n.e.c. (Specify by name and model number.)							
8619(46)A Amplifiers, as follows: (a) amplifiers [ . . . . ] [ 611 ] [ QSTVWXYZ ] [ 500 ] [ 100 ] [ 0 ] designed to operate at frequencies in excess of 500 MHz, (b) tuned amplifiers having a bandwidth which exceeds 10 MHz, or 10 percent of the mean frequency, whichever is less, <i>except those specially designed for use in community television distribution systems, or</i> (c) untuned amplifiers having a bandwidth which exceeds 10 MHz, <i>except those having a bandwidth less than 30 MHz and a power output not exceeding 5 watts; and specially designed parts, n.e.c. (Specify by name and model number.)</i> [See No. 724 for amplifiers designed for electronic communications equipment, electronic navigational aids, and electronic search and detection apparatus, including radar.]							

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>1</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number •	• Validated Licenses Required for Country Groups Shown Below	• GLV & Value Limits for Shipments to Country Groups			• Special Partitions List
				T	V	X	
8619(47)A Amplifiers, electronic or magnetic, designed for use with resolvers, as follows: (a) isolation types having a variation of gain constant (linearity of gain) of 0.2 percent or better, (b) summing types having a variation of gain constant (linearity of gain) or an accuracy of summation of 0.2 percent or better, (c) employing solid state Hall effect, or (d) designed to operate below minus 55° C. or above plus 125° C.; and specially designed parts, n.e.c. (Specify by name and model number.)		[ 431 ]	QSTVWXYZ	500	250	0	
* 8619(48)E Other amplifiers designed for use in nuclear measurements; and parts, n.e.c. (Specify by name and model number.) <sup>1</sup>		[ 628 ]	SXYZ	—	—	100	
8619(49)M Other parts and accessories, n.e.c., for meters, instruments, appliances, and devices listed under Nos. 7295 and 8618. (Specify name of meter, instrument, appliance, or device.) <sup>1</sup>		[ ]					Export controls applicable to commodities included in this entry are those which apply to the meter, instrument, appliance, or device for which the parts and accessories are designed.
8619(50)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 861.9110 through 861.9970. (Also specify 7-digit Schedule B No.) <sup>1</sup>		[ 628 ]	SZ <sup>3</sup>	—	—	—	
* 862(1)B Synthetic polymer photoresists and specially purified (electronic grade) photoresist developers.		[ 222 ]	QSTVWXYZ	25	25	0	
* 862(2)E Other prepared photographic chemicals, except photoresist formulations based on naturally occurring glues, gums, gelatins, albumens, shellacs, or lacquers; developers; fixers; intensifiers; reducers; toners; clearing agents; and flashlight materials.		[ 228 ]	SXYZ	—	—	100	
862(3)A Photographic film, sensitized, unexposed, having (a) an intensity dynamic range of 1,000:000:1 or greater, or (b) a speed of ASA 10,000 (or equivalent) or more. (Specify by type, number of exposures per roll or pack, and number of rolls or packs.)	Sq. ft.	[ 211 ]	QSTVWXYZ	25	25	0	
862(4)A Photographic plates, sensitized, unexposed, having an intensity dynamic range of 1,000,000:1 or greater. (Specify by type, size, and number.)	Sq. ft.	[ 211 ]	QSTVWXYZ	25	25	0	
* 862(5)B Photographic plates, sensitized, unexposed, having a speed of ASA 10,000 (or equivalent) or more. (Specify by type, size, and number.)	Sq. ft.	[ 212 ]	QSTVWXYZ	25	25	0	
* 862(6)B Photographic film and plates, including metal-clad, sensitized, unexposed, capable of a resolution (when measured with a 1,000:1 high contrast test object) of more than 500 line pairs/mm. (Specify by type, size, and number of plates or cut film.)	Sq. ft.	[ 212 ]	QSTVWXYZ	0	0	0	
* 862(7)B Aerial film and plates and continuous tone aerial duplicating film and plates, sensitized, unexposed, or exposed but not developed, as follows: (a) having a spectral sensitivity extending above 7,200 or below 2,000 angstroms, (b) capable of a resolution (when measured with a 1,000:1 high contrast test object) of 100 or more line pairs/mm. for aerial camera film and plates or more than 300 line pairs/mm. for aerial duplicating film and plates, or (c) having a base thickness before coating of less than .004 inches. (Specify by type, size, and number of spools or plates.)	Sq. ft.	[ 212 ]	QSTVWXYZ	0	0	0	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirements.<sup>4</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.

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862(8)—891(3)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	* Precising Prefix Number	* Validated License Required for Country Groups Shown Below	* GLV & Value Limits for Shipments to Country Groups			* Special Provisions List
				T	V	X	
* 862(8)J Other aerial and aerial duplicating film    Sq. ft.    218    QSWXYZ    —    —    0    and plates, sensitized, unexposed, or exposed but not developed. (Specify by type, size, and number of spools or plates.)							
* 862(9)B Other photographic film and plates, sen-    Sq. ft.    212    QSTVWXYZ    25    25    0    sitized, unexposed, having spectral sensitivity ex- tending above 7,200 or below 2,000 angstroms. (Specify by type, size, and number of film or plates.)							
* 862(10)F Other still picture photographic film and    Sq. ft.    218    SYZ    —    —    —    plates, sensitized, unexposed, except spectrophoto- graphic, spectrum analysis, and astronomical recording film and plates. (Specify by type, size, and number of film or plates.)							
862(11)A Photographic film and plates, including    Sq. ft.    211    QSTVWXYZ    0    0    0    metal-clad, exposed and developed, bearing an image specially designed for (a) use in the manufacture of semiconductor devices, integrated circuits, and similar electronic equipment and components, or (b) the creation of a photosensitive pattern on the surface of a semi- conductor or insulating substrate. (Specify by type, size, and number of plates or cut film.)							
* 862(12)B Photographic film and plates, including    Sq. ft.    212    QSTVWXYZ    0    0    0    metal-clad, exposed, but not developed, bearing an image suitable for use in the production of masks for micro-electronic circuitry manufacture. (Specify by type, size, and number of plates or cut film.)							
862(13)G <sup>1</sup> Commodities not listed above, classified    ..... <sup>2</sup>    218    SZ <sup>1</sup>    —    —    —    under Schedule B Nos. 862.8000 through 862.4670. (Also specify 7-digit Schedule B No.)							
863(1)N <sup>3</sup> Motion picture film and sound track, ex-    Lin. ft.    218    None <sup>3</sup>    —    —    —    posed and developed, containing exclusively news and documentary material.							
863(2)H <sup>4</sup> Other motion picture film and sound    Lin. ft.    218    S <sup>4</sup>    —    —    —    track, exposed and developed.							
864(1)G <sup>5</sup> Commodities classified under Schedule B    ..... <sup>2</sup>    218    SZ <sup>1</sup>    —    —    —    Nos. 864.0310 through 864.8000. (Also specify 7- digit Schedule B No.) <sup>6</sup>							
<b>MISCELLANEOUS MANUFACTURED ARTICLES, N.E.C.</b>							
891(1)A Television (including video tape and disc)    ..... <sup>4</sup>    611    QSTVWXYZ    500    250    0    recording and/or reproducing equipment; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)							
891(2)A Recording and/or reproducing equipment    ..... <sup>4</sup>    611    QSTVWXYZ    500    250    0    employing electron beam(s) operating in a vac- uum, and/or those employing laser produced light beams that produce patterns or images directly on the record- ing surface; and specialized equipment for image development; recording media specially designed therefor; and specially designed parts and accessories, n.e.c. (Specify by name and model number.) <sup>5</sup>							
891(3)A Magnetic instrumentation recorders and/    ..... <sup>7</sup>    601    QSTVWXYZ    500    250    0    or reproducers; and specially designed parts and accessories, n.e.c. (Specify by name and model number.)							

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See § 899.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.

<sup>3</sup> Report unit for each commodity in accordance with Schedule B requirements.

<sup>4</sup> A validated license may be required if this commodity contains technical data. See Part 379.

<sup>5</sup> A validated license may also be required for other destinations if this commodity contains technical data. See Part 379.

<sup>6</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.

<sup>7</sup> Report equipment in "number."

<sup>8</sup> Report recorders and reproducers in "number."

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Export Control Number	Validated Licenses Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions
				T	V	X	
891(4)A Magnetic tape and other recording media, n.e.c., designed for electronic computers. (Specify by name.) <sup>1</sup>		621	QSTVWXYZ	500	250	0	
891(5)A Magnetic tape and other recording media, n.e.c., designed for seismic or seismograph equipment. (Specify width of tape. If in sheet form, specify size and number of sheets.)		401	QSTVWXYZ	500	100	0	
891(6)A Video tape and other recording media for television recording equipment. (Specify by name and type number.) <sup>1</sup>		611	QSTVWXYZ	500	250	—	
891(7)A Magnetic tape and other magnetic recording media for other magnetic recording and/or reproducing equipment, except media designed for voice and music only. (Specify by name and type number.) <sup>1</sup>		601	QSTVWXYZ	500	250	0	
891(8)H <sup>2</sup> Commercial phonograph records, recorded.		218	S <sup>3</sup>	—	—	—	
891(9)G <sup>4</sup> Commodities not listed above, classified under Schedule B Nos. 891.1110 through 891.9020. (Also specify 7-digit Schedule B No.)		218	SZ <sup>5</sup>	—	—	—	
892(1)N <sup>6</sup> Printed books, pamphlets, and miscellaneous publications, including bound newspapers and periodicals; children's picture and painting books; newspapers and periodicals, unbound, excluding waste; music books; sheet music; calendars and calendar blocks, paper; and advertising printed matter exclusively related to developed motion picture film containing exclusively news and documentary material under No. 868.		218	None <sup>7</sup>	—	—	—	
892(2)I <sup>8</sup> Maps, hydrographic charts, atlases, gazetteers, globe covers, and globes (terrestrial or celestial).		218	Z	—	—	—	
892(3)H <sup>9</sup> Other advertising printed matter exclusively related to developed motion picture film, books, miscellaneous publications, newspapers, and periodicals under Nos. 863 and 892.		218	S <sup>3</sup>	—	—	—	
892(4)G <sup>4</sup> Commodities not listed above, classified under Schedule B Nos. 892.1110 through 892.9850.		218	SZ <sup>5</sup>	—	—	—	
89300(1)A Articles designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 200 MHz.		601	QSTVWXYZ	500	500	0	
89300(2)A Articles, finished, n.e.c., wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)		221	QSTVWXYZ	500	500	0	P-3
* 89300(3)D Silicone rubber manufactures, n.e.c., including silicone rubber packing.		228	SWXYZ	—	—	100	
89300(4)A Articles, finished, n.e.c., made of polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, and polyparaxylolones, where the value of such contained polymeric substance, either alone or in combination with fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22, is 50 percent or more of the total value of the materials used. (Specify name and value of these substances and total value of other materials.)		221	QSTVWXYZ	500	500	0	P-3

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.  
<sup>2</sup> See Supplement No. 2 to Part 370 for commodities which require export authorization from the U. S. Department of State.  
<sup>3</sup> Report magnetic tape in "thousand feet."  
<sup>4</sup> A validated license may also be required for other destinations if this commodity contains technical data. See Part 379.  
<sup>5</sup> A validated license is also required for export of these commodities to Cuba.  
<sup>6</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.  
<sup>7</sup> Report unit for each commodity in accordance with Schedule B requirement.  
<sup>8</sup> A validated license may be required if this commodity contains technical data. See Part 379.

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89300(5)—895(1)

Commodity Control List—899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Revision Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List	
				T	V	X		
*89300(5)B Other articles, finished, n.e.c., containing polyimides, polybenzimidazoles, polyimidazopyrrolones, aromatic polyamides, polyparaxylolones, or polyimide-polyamide. (Specify name and value of these substances and total value of other materials.)			222	QSTVWXYZ	500	500	0	P-3
89300(6)A Resin (plastic) composite structures or laminates (including molded shapes), as defined in § 399.2, Interpretation 23. <sup>1</sup>			221	QSTVWXYZ	500	100	0	
*89300(7)B Other articles, finished, n.e.c., of artificial plastic materials containing silica, quartz, carbon, or graphic fibers in any form. <sup>2</sup>			222	QSTVWXYZ	500	100	0	
89300(8)A Hose, tubing, and fittings therefor, made of, lined with, or covered with polytetrafluoroethylene, polyvinylidene fluoride, or the copolymers of tetrafluoroethylene and hexafluoropropylene, chlorotrifluoroethylene, and vinylidene fluoride, or hexafluoropropylene and vinylidene fluoride. (Specify length of each piece.)	Pieces		221	STVWXYZ	500	100	0	P-3
*89300(9)D Articles, finished, n.e.c., as follows: (a) wholly made of other fluorocarbon polymers or copolymers, (b) partially made of polytetrafluoroethylene or polychlorotrifluoroethylene, (c) made of molding compositions containing more than 20 percent by weight of fluorocarbon polymers or copolymers, (d) pressure sensitive tape coated or impregnated with fluorocarbon polymers or copolymers, or (e) hose and tubing lined or covered with other fluorocarbon polymers or copolymers. (Specify by name and type.)			228	SWXYZ	—	—	100	
89300(10)A Nonflexible fused fiber optic plates or bundles having all the following characteristics: (a) a fiber pitch (center to center spacing) of less than 15 microns, (b) a light-absorbing medium surrounding each fiber, or interstitially placed between fibers, and (c) a diameter greater than ¼ inch.			611	QSTVWXYZ	500	100	0	
89300(11)C <sup>3</sup> Commodities not listed above, classified under Schedule B Nos. 893.0005 through 893.0060. (Also specify 7-digit Schedule B No.)				SZ <sup>4</sup>	—	—	—	
*894(1)E <sup>5</sup> Nonmilitary shotguns, barrel length 18 inches or over; and parts, n.e.c. <sup>6</sup>			218	SXYZ <sup>7</sup>	—	—	100	
894(2)C <sup>8</sup> Nonmilitary arms, discharge type (for example, stun-guns), except arms designed solely for signal, flare, or saluting use; and parts, n.e.c. <sup>9</sup>			218	SZ <sup>4</sup>	—	—	—	
894(3)C <sup>8</sup> Commodities not listed above, classified under Schedule B Nos. 894.1010 through 894.5000. (Also specify 7-digit Schedule B No.) [Report self-contained diving and underwater breathing apparatus in No. 861.] <sup>10</sup>			218	SZ <sup>4</sup>	—	—	—	
895(1)C <sup>8</sup> Office and stationery supplies classified under Schedule B Nos. 895.1100 through 895.9600. (Also specify 7-digit Schedule B No.)			218	SZ <sup>4</sup>	—	—	—	

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> See Supplement No. 2 to Part 870 for commodities which require export authorization from the U. S. Department of State.

<sup>3</sup> See § 399.2, Interpretation 27, for commodities requiring a validated license for export to East Germany.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> A validated license is also required for export of these commodities to the Republic of South Africa.

<sup>6</sup> Export authorization is required from the U. S. Department of State for (a) firearms of any caliber (including combination rifle-shotguns), nonmilitary shotguns with barrel length of less than 18 inches, and parts and components therefor, and (b) tear gas guns, signal and Verré pistols. See Supplement No. 2 to Part 870.

<sup>7</sup> Report shotguns in "number."

<sup>8</sup> A GLV dollar-value limit of \$100 is established for the shipment of nonmilitary shotguns and \$50 for the shipment of parts for these shotguns to the Republic of South Africa.

<sup>9</sup> Export authorization from the U. S. Maritime Administration is required for recreational watercraft. See § 870.10(f).

June 1, 1972

Export Control Regulations

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Processing Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
896(1)G Works of art, collectors' pieces, and antiques. <sup>1</sup>	. . . . .	218	SZ	—	—	—	
897(1)A Platinum-clad molybdenum tubing containing more than 99.5 percent molybdenum, and platinum-clad molybdenum alloy tubing containing 95 percent or more molybdenum.	Lb.	261	QSTVWXYZ	500	100	0	P-8
* 897(2)D Other platinum-clad molybdenum tubing.	Lb.	268	SWXYZ	—	—	100	
897(3)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 897.1110 through 897.2050. (Also specify 7-digit Schedule B No.) <sup>3</sup>	. . . . .	218	SZ	—	—	—	
* 899(1)B Wire cloth sieves, all types, including electroformed, containing 95 percent or more nickel, with 60 or more sieves per linear centimeter or the equivalent thereof.	. . . . .	212	QSTVWXYZ	500	500	0	P-8
899(2)A Prostheses wholly made of fluorocarbon polymers or copolymers as defined in § 399.2, Interpretation 22. (Specify by type.)	. . . . .	231	QSTVWXYZ	500	500	0	P-3
899(3)A Ground installed aircraft catapult systems; and specially designed parts, n.e.c. <sup>4</sup>	. . . . .	431	QSTVWXYZ	500	500	0	
899(4)A Equipment specially designed to facilitate operations of military aircraft in confined areas; and specially designed parts and accessories, n.e.c. <sup>4</sup>	. . . . .	431	QSTVWXYZ	500	0	0	
* 899(5)E Other nonmilitary aircraft ground handling equipment, ground installed arresting systems, flight simulators, ground flying trainers, and other related equipment, n.e.c.; and parts and accessories, n.e.c. <sup>4</sup>	. . . . .	438	SXYZ	—	—	100	
899(6)G <sup>2</sup> Commodities not listed above, classified under Schedule B Nos. 899.1000 through 899.9910. (Also specify 7-digit Schedule B No.) <sup>3</sup>	. . . . .	218	SZ	—	—	—	
* 899(7)E Manufactured articles, n.e.c., classified under Schedule B No. 899.9890.	. . . . .	218	SXYZ	—	—	100	

## SECTION 9—COMMODITIES AND TRANSACTIONS NOT CLASSIFIED ACCORDING TO KIND

- \* 9(1)D<sup>5</sup> Replacement parts used in the repair of articles being returned to the country from which imported into the United States for inspection, testing, calibration, or repair. (Specify article and repair part by name.) (See § 371.17(a).)
- 9(2)M<sup>6</sup> Parts used in the alteration of articles being returned which were imported into the United States for alteration other than inspection, testing, calibration, or repair. (Specify article and parts added.)

<sup>1</sup> For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

<sup>2</sup> Export authorization is required from the U. S. Treasury Department for items of which 90 percent or more of the total value is attributable to gold content. See § 370.10(b).

<sup>3</sup> See § 399.2, Interpretation 21, for commodities requiring a validated license for export to East Germany.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> Aircraft launching equipment and military ground flying training equipment require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 370.

<sup>6</sup> Parachutes (other than those in normal sporting use) for personnel or cargo dropping and aircraft deceleration, and complete canopies, harnesses, platforms, and electronic release mechanisms therefor, require export authorization from the U. S. Department of State. See Supplement No. 3 to Part 370.

<sup>7</sup> A validated license is not required for export of these commodities to Hong Kong and Macao (Country Group X).

CCL-94

9(3)-9(10)

Commodity Control List-899.1

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Export Control Number A. Number	Validated License Required for Country Groups Shows Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
9(8)M Commodities, n.e.c., donated for relief or charity by individuals or private agencies. (Specify by name.) [Report exports of commodities for relief or charity purposes by governmental agencies, excluding used clothing, under the applicable classification for the commodity being exported; and report used clothing in No. 841.]							
9(4)M General merchandise valued at \$250 or under, except shipments requiring a validated export license. (Specify by name.)							
* 9(5)E Bacteria. (Specify by name.)		248	SKYZ	—	—	100	
* 9(6)E Other commodities not classified according to kind. (Specify by name.)		218	SKYZ	—	—	100	
9(7)A Parts and components for ammunition, except cartridge cases, powder bags, bullets, jackets, cores, shells, projectiles, boosters, fuses and components, primers, and other detonating devices, and ammunition belting and linking machines. (Specify by name.) <sup>1</sup>		211	QSTVWXYZ	500	100	0	
* 9(8)D Survival kits and military apparel and footwear. (Specify by name.) <sup>2</sup>		218	SWXYZ	—	—	100	
* 9(9)J Other military equipment not identified by kind. (Specify by name.) <sup>3</sup>		218	QSWXYZ	—	—	100	
9(10)G' Commodities not listed above, classified under Schedule B Nos. 931.0010 through 941.0000, and 951.0320 through 961.0000. (Also specify 7-digit Schedule B No.) <sup>4,5</sup>		218	SZ'	—	—	—	

<sup>1</sup> Per explanation, see "General Information Regarding Commodity Control List" at beginning of § 899.1.

<sup>2</sup> Cartridge cases, powder bags, bullets, jackets, cores, shells (excluding shotguns), projectiles, boosters, fuses and components therefor, primers and other detonating devices, ammunition belting and linking machines, military helmets and liners, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

<sup>3</sup> Insurgency and counterinsurgency weapons having a special military application, and all firearms regardless of caliber, and parts therefor, including firearms, silencers, bayonets and parts, among other commodities, require export authorization from the U. S. Department of State. See Supplement No. 2 to Part 870.

<sup>4</sup> Report unit for each commodity in accordance with Schedule B requirement.

<sup>5</sup> See § 899.2, Interpretation 22, for commodities requiring a validated license for export to East Germany.

<sup>6</sup> See § 870.10(i) for U. S. endangered native fish and wildlife and migratory birds which require export authorization from the U. S. Department of the Interior.

June 1, 1972

Export Control Regulations

Mr. REES. Several years ago, we were present for part of the COCOM negotiations and in talking with some of the negotiators from Western Europe we perceived that their feeling was that the United States was hanging very tough on the COCOM list, that it was primarily at the insistence of the United States that a great many items were kept on the COCOM list which the members of COCOM did not think should be on the list, and even though we insisted on having many items on the list, we still went further with more items on our own list. The feeling was that we were overly restrictive.

In talking to many of the technical manufacturers in my own district, the feeling is, too, that the list is over restricted, it keeps them from competing in areas where they would like to open markets in Eastern Europe and that firms from Sweden, Japan, West Germany, are now going in there and taking markets. Our manufacturers felt they could have entered these markets but they can't because of the items that are on the COCOM list and the U.S. list. Even though you might have cut down on the items on our own list and the COCOM list, many of the manufacturers do not apply for licenses because as they say, "why apply because we are going to get horsed around for 6 weeks or 10 weeks and we are going to lose the deal."

It was a rather long question. I would say, first, what about the COCOM negotiations and our negotiating posture there?

Mr. MEYER. I think it true that the United States is generally more conservative when it comes to the COCOM list than a good many if not all of our COCOM partners. The United States is primarily responsible for the security of the free world and approaches the COCOM list as something which is a part of the free world security system. All of the member countries in COCOM, of course, bring to the COCOM list review their own particular sense of priorities, and we do find that from time to time, opinions range fairly widely on the necessity of controlling certain items. The United States is conservative. I rather expect we shall remain this way, which is not to say that we are oblivious to the need for change. We have volunteered changes, we have accepted changes proposed by others, but we think that where there is justification, where, for example, the item clearly has the capacity to improve the military potential in the East European countries, then there is a valid basis for keeping it on the COCOM list.

With respect to the competitive feature or the competitive disadvantage arising out of the presence of an item on the list, I would point out that all 15 members of COCOM work under the same rules. Their firms are not free to export without licenses issued by their own governments, and while there is a procedure for approving exceptions to the COCOM embargo list, these exceptions are granted only after a full review in COCOM. Moreover, these exceptions are granted only when there is unanimous agreement in COCOM. As a consequence of this procedure, the United States is in a position to assure that foreign firms are treated no more liberally than U.S. firms and *visa versa*.

Mr. REES. How many other countries have supplemental lists such as the United States?

Mr. MEYER. I beg your pardon?

Mr. REES. How many other countries have supplemental lists such as the United States?

Mr. MEYER. I don't know of any other country, sir. If there are controls exercised by the other COCOM countries over and above the COCOM list, I would concede they don't approach the extensive list the United States has.

Mr. REES. Mr. Chairman, I have used up my time. I would like to make one observation. It is my feeling that if the United States is ever going to survive in the world market that we have to put a stress on technological product exports and the export of technology. If we don't do that, we are not going to make it. If we don't adjust our economy to a world market we are not going to solve our balance-of-payment problems. In reading the Wall Street Journal this morning, I think the present month's deficit in our export account was over \$699 million, and we can't continue that way. And if you continue to put restrictions on those U.S. manufacturers that deal in technical items and are able to compete any place in the world with those technical items, you are just really drawing U.S. industry out of a good part of the world today. I think its a policy that could be economically disastrous and I hope that you could get the two ends of commerce together, that end that is trying to export and that end that is trying to license exports.

Mr. MEYER. I think, Mr. Rees, we are definitely drawing closer together.

Mr. ASHLEY. Mr. Blackburn.

Mr. BLACKBURN. Thank you. Let me say on the other side of the aisle, I don't mind your being conservative in granting these licenses. I know it creates a problem for some of our manufacturers. I personally don't feel that our balance of trade problem is strictly due to the policies of the Export Administration Act, but I suspect it goes to far more basic economic problems, for example, such matters as increasing the minimum wage law, which is going to be reflected in higher prices for our goods throughout the whole world. I think a lot of Government policies that are being foisted on industry are increasing the cost of our production and decreasing our competitive position in world markets.

I would like to ask you a few more questions about this truck factory we are helping the Russians to build. A bicycle is not considered a military item; is it?

Mr. MEYER. I beg—

Mr. BLACKBURN. A bicycle is not considered a military item; is it?

Mr. MEYER. No, sir.

Mr. BLACKBURN. Yet, we do know that the North Vietnamese are very successfully using bicycles in hauling literally thousands of war material down the Ho Chi Minh Trail. We know that; don't we?

Mr. MEYER. Yes, sir.

Mr. BLACKBURN. That we say a truck that can haul 16 tons of goods has no military significance is rather amazing to me. I don't see how you can say that. One of the things our fliers have been doing for the last 3 weeks is blowing up Russian trucks; how can we say that helping the Russians build more trucks isn't going to improve their military capability? Who do you talk to in making these policy decisions? Do you talk to anybody over at the Defense Department. Talk to some of

our fliers who are blowing up Russian trucks every day. How can you reach these conclusions?

Mr. MEYER. We did consult very extensively with the Defense Department. We took into account the nature of the trucks, the fact that they are configured in such a way as not to serve tactical or combat purposes.

I think we would concede that in a war they could serve logistical support purposes.

Mr. BLACKBURN. One of the things that bothers me is when we say that we are just going to sell technology. Of course, the real advantage of technology is the increased ability to produce, and that is the kind of technology that the Soviet satellite countries would like to have; isn't it?

Mr. MEYER. Yes, sir.

Mr. BLACKBURN. Well now, if we sell them the technology that increases their productive capacity, that is not going to necessarily improve our balance of trade over the long run because it's not going to be the sort of thing we are going to be selling time after time after time. Once they have learned how to use our technology to manufacture better trucks or better airplanes or what have you, they are not going to come back and buy the same technology from us again; are they?

Mr. MEYER. No sir, technology lends itself to the customer setting himself up in business.

Mr. BLACKBURN. That is right. So, the technology we are talking about selling right now is the kind of technology that will set the Eastern European countries up in business to better compete with us.

I wonder about the wisdom of relaxing the number of items on the list. I guess you gather there is a little difference of philosophy up here on the bench between some Members of the Congress and some others. So I want to reflect that everybody up here doesn't think you ought to tear the list up. I think there are justifications for restricting some of this trade.

Mr. MEYER. May I make a point, Mr. Congressman?

Mr. BLACKBURN. Sure.

Mr. MEYER. In connection with the Kama River truck project, the act does, of course, put us under an obligation to pay a good deal of attention to the foreign availability of commodities and technology. What we are talking about as having licensed for the Kama River truck project is available abroad. There is a good deal of competition from foreign companies for this particular business. I am not aware that we have licensed anything that could not have been supplied by foreign companies. Taking that into account, together with all the other considerations I cited, we came to the conclusion that it would be appropriate and not contrary to the terms of the act regarding national security to issue these licenses.

Mr. BLACKBURN. Does your office cooperate with the Office of Foreign Direct Developments, which is also in the Commerce Department? Before that office allows direct developments do they check with you to make sure that the equipment that may be needed abroad can be shipped out of the country?

Mr. MEYER. There has not been a good deal of close work with the OFDI because I don't think there has been any significant export control problem as far as their activity is concerned.

Mr. BLACKBURN. I doubt if really we are making any direct developments in any of the Communist countries.

Mr. MEYER. They are solely concerned, with the free world.

Mr. BLACKBURN. Well, all you are asking is a simple extension of the act?

Mr. MEYER. That is correct.

Mr. BLACKBURN. As I interpret your testimony?

Mr. MEYER. That is right.

Mr. BLACKBURN. That is the official position of the Department then, just a simple extension of the act?

Mr. MEYER. Yes, sir.

Mr. BLACKBURN. I have no further questions.

Mr. KOCH (presiding). I think that I am next with respect to the questioning.

I noticed in reading your testimony that you have a reference to hides and the effect of the increased purchasing abroad of American hides as a result of the Argentinian Government placing an embargo on the sale of Argentinian hides. And the reason it becomes important from my point of view is that we here in the Congress are under a great deal of pressure, probably quite legitimate, on the part of shoe manufacturers who say they cannot compete with, for the most part, Italian shoes being imported into the country as a result of prices and that they are being squeezed, one, as a result of lower labor costs in Italy in the production of the shoes, and, two, as a result of their other higher costs, including the higher cost of their merchandise, their raw materials, I should say, purchased here in the United States.

The reason I am interested in the comment that you made in your testimony is that you indicated that this was brought to your attention in the latter part of 1971 and that you are still working on this problem as to whether or not you will exercise your power to limit the export of hides because that obviously would have an effect upon domestic sales and the prices of domestic sales. I wonder why it takes so long and whether in view of that problem, which I suspect you are more aware of perhaps than I am, that you would not give this a preference in arriving at a decision?

Mr. MEYER. Mr. Congressman, the invocation of the short supply provisions of the act is a particularly difficult and troublesome and bothersome thing because short supply controls impact in a different fashion on various segments of U.S. industry. These controls in effect, take away business prospects for exporters. On the other hand, they may be necessary for the health of certain domestic businesses. The terms of the act specify certain conditions under which we are to impose these short supply controls. We have taken the position that all of the conditions must be met. It is generally very difficult to acquire the necessary statistics to permit a clean-cut conclusion respecting the applicability of the conditions set forth in the act. On hides and skins, we have had a number of meetings with the various segments of industry that would be affected, and we did find that we were lacking certain critical information. We directed a questionnaire to all segments of the leather and shoe industry for information regarding shipments and orders and inventories. We are now in the process of analyzing and tabulating the data.

The Secretary wants to be certain that the action he takes is called for by the circumstances.

Mr. KOCH. But, of course, we also worry about the patient dying before the doctor performs the operation required, and that really is what is of great concern to me.

Am I correct that this procedure of analysis in getting the information you need is taking close to a year?

Mr. MEYER. No; I don't think it accurate to say that this particular phase has taken that long. First, of course, were the representations by the various members of the industry, pro and con, and, as you can appreciate, these were not in complete agreement. You had industry competing with industry so it was necessary to sort out the facts, and in doing so new questions were raised.

Mr. KOCH. At this point in time would you be able to give us an estimate as to when you would make your decision, not what the decision would be, but when you would make your decision so people could act upon that?

Mr. MEYER. I am not really in a position to give you that.

Mr. KOCH. I understand that. Let me take you to another area.

Who makes the decision and how is that decision made as to whether a country like Rumania is singled out from other Communist countries to be given the same kind of special treatment, if you will, if that is the expression, as we now give Yugoslavia. I noted in your testimony you say that Yugoslavia is treated as are all Western European countries, and in testimony taken before this committee in other matters it became clear that Rumania is somewhat different in terms of its independence relating to other Communist countries and there seemed to be a feeling on the part of some members of the committee that that ought to be taken into consideration.

How does a country like Rumania receive the status that Yugoslavia is now receiving? Who makes that decision?

Mr. MEYER. A broad policy decision of this sort is made at high levels. It would engage the attention of high policy officials in State, Commerce, Defense, other agencies around town, and the White House.

Mr. KOCH. Thank you.

Mr. McKinney.

Mr. MCKINNEY. Thank you, Mr. Meyer. I really only have one question and that is the interaction of the State Department with your decisions. Are there periods or times when the State Department will rescind one of your decisions or can they or do they review the decisions that are made?

Mr. MEYER. The President has delegated to the Secretary of Commerce the authority to administer the Export Administration Act. We consult with the State Department as well as other agencies extensively and continually. If there is disagreement, the matter is not settled at my particular level, but is escalated and, depending on the nature of the disagreement, may get up to fairly high levels.

On foreign policy matters, as they effect our controls, we do, of course, look to the State Department as our primary adviser. In terms of their rescinding actions of ours, they cannot, of course, do this on their own. They can recommend, and support their recommendation, that a certain course of action be changed.

Mr. MCKINNEY. If a question regarding technological gadgetry for an English-French satellite arose, would the State Department or would your Department make a final decision on that?

Mr. MEYER. Well, speaking purely technically, we would make the decision, provided that the equipment in question is not on the munitions list which is not under our jurisdiction. We would, of course, listen to State. Presumably there would have to be developed an administration policy respecting or at least covering that particular transaction or the broad program. We would work within the administration policy. A contemplated change in that policy which would be carried up through the chain of command.

Mr. MCKINNEY. In other words, there is no real working partnership. It appears, at least to this Congressman, that a difference in directions exists between the Department of Commerce and Department of State. It appears to me that the Department of Commerce, and I applaud the effort, is interested in expanding the American trade, whereas the State Department doesn't seem to care one wit, and it seems to me this is a basic conflict. From what you have said, I would gather that the conflict doesn't seem to be bothering your operation.

Mr. MEYER. I would not want to suggest for a minute we do not have some disagreements, but State is in charge of foreign policy. Where this impacts on trade, then the Department of Commerce raises its voice. We are not always in disagreement and we are not always in agreement, but we do work very closely together.

Mr. MCKINNEY. You are not alone in your disagreements, Mr. Meyer, I have a few myself.

Thank you very much.

Mr. KOCH. Mr. Curlin.

Mr. CURLIN. Mr. Meyer I was reviewing some of the testimony before the other body in the hearing of the Subcommittee on International Finance and there are some recommendations contained in the material by some of the American industry leaders, you may or may not be familiar with it, referring to a statement of Irvin Tomash, chairman of the board of Data Products Corp. There are a couple of recommendations on page 228 of the hearing before the Senate on March 13 and 14, 1972, he says that a reversal of administrative techniques would be helpful, that export license applications yet ought to become effective 30 days after application is filed unless the Department of Commerce notified the applicant of rejection and defines the problem in this manner. The burden of expediting action will fall on the licensing authorities rather than on the applicant.

Do you think this has any merit, is this an unrealistic recommendation?

Mr. MEYER. I think it is unrealistic because it would be very difficult to operate under the gun this way.

Mr. CURLIN. A 30-day limitation would be too severe?

Mr. MEYER. Yes, sir, And I might observe that if we were put under such a deadline we might find ourselves denying a good many more licenses.

Mr. CURLIN. Just to get them out of the way in the 30 days?

Mr. MEYER. Yes, sir.

Mr. CURLIN. He points out some difficulties he encountered somewhere in Eastern Europe about the requirement for the end user

identification for peripheral equipment should be eliminated. He says this is very difficult apparently when he is selling parts to the Eastern European manufacturer that his buyer is not the ultimate consumer, of course, and it is difficult to meet the requirement of the end user identification. Are you familiar with this problem?

Mr. MEYER. Yes, sir; I am. The end use certificate is an integral part of our procedure, because it permits us to approve for peaceful uses transactions involving commodities that also have strategic uses.

Mr. CURLIN. Of course he talks about peripheral equipment. I do not know what that would mean. But in his mind I reckon it means material that is not that critical.

Mr. MEYER. No sir, I do not believe he means that. It means equipment that is used with computers. It does not mean marginal in that sense.

Mr. CURLIN. All right.

Mr. MEYER. And we consider computers and their peripheral equipment such as disc drives, memory units and so on, under the same guidelines.

Mr. CURLIN. He is talking about rolls or something that he says is pretty common. IBM has quit making drums and material like that.

We have had a report of a situation which occurred less than a year ago in which an American firm was denied opportunity to sell technical assistance to a related Western European firm. It was a matter of substantial promotion and loss of the contract by reason of the denial of or loss of license resulting in unemployment of many technical people without any apparent prevention of the movement of the technology. I am advised that a foreign firm simply hired those among the unemployed it wished and proceeded to fulfill its objectives. Are you familiar with this? Am I talking in too many generalities?

Mr. MEYER. I do not recognize the situation.

Mr. CURLIN. It is in the air industry, I think, involving a West German firm.

Mr. MEYER. Why don't I pursue this and supply the answer for the record if I may.

Mr. CURLIN. All right. Of course this is a situation which prompts the view that the current activity of the Department of Commerce is simply not engaging in sufficient consultation with industry.

(In response to the request of Mr. Curlin, the following information was submitted for the record by Mr. Meyer:)

The Office of Export Control has reviewed its records and can find nothing that could be identified with this transaction. The Office of Munitions Control, Department of State, and the office of the Assistant for Security and Trade Affairs, Deputy Chief of Staff/Systems and Logistics, U.S. Air Force, were contacted. The information was not in sufficient detail to permit them to relate it to any export transaction in which they may have been involved. If additional details are available, including, if possible, the names of the firms involved, the Department will be pleased to pursue the matter further.

Mr. CURLIN. I have some more questions here, if I could proceed. What is the Department of Commerce's position regarding the sale of large commercial jet aircraft to Red China?

Mr. MEYER. We have not as yet issued any licenses. We have advised firms that they may negotiate and that their negotiations should deal with planes that would not include equipment, avionics and communi-

cation equipment for example, of the highly sophisticated type found on military planes. Additionally, the planes in question would be used for civilian and passenger use. There has been no explicit application laying out all these details brought before us as yet. We do know a number of American companies have been engaged in talking with the Chinese over the course of the past several months on such a transaction.

Mr. CURLIN. You are aware, Mr. Meyer, I am sure, that the sale of jet aircraft to foreign commercial airlines constitutes one of the most significant if not the most significant component of growth of our export trade. It is my understanding that there was delay of 4 to 6 weeks during the time of the Bangladesh crisis and the delivery of two inertial navigation system units to Air India for their 747's. These had been sent to Delco Electronic for repair in this country.

It is my understanding that the reason for the delay was the fact that inertial navigation units were used in the ICBM's and that when they sent the planes over here to be repaired or sent these components to be repaired it fell into the classification on the munitions list. In spite of what we have been advised the units are a different model which will never stand up in an ICBM. Are you familiar with this?

Mr. MEYER. Those instruments are under the control of the State Department.

Mr. CURLIN. They bought the airplane and had it and sent the component back to be repaired and it falls under these regulations.

Mr. MEYER. I think they would fall under the State Department's regulation.

Mr. CURLIN. I guess that was somebody's oversight that they were sold to begin with, I mean on the original equipment, on the 747.

Mr. MEYER. I am not really familiar with the transaction. You are speaking of the sale to a free world country and I am sure that whatever license was necessary must have been duly authorized. I cannot comment definitively, however.

Mr. CURLIN. That is all.

Mr. KOCH. Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. Meyer, thank you for being with us this morning. I am sorry that I was a little late in arriving.

I want to at the outset commend you and your associates for the cooperation we have received recently and in the past when we were trying to work out the modification of the Export Administration Act a couple years ago. At the time we made those modifications in the old Export Control Act there was some concern that the reporting requirements we imposed would become onerous. Have they or do you find that the legislation in that regard is working out all right. Do you have any comments in that regard?

Mr. MEYER. We have adjusted to the requirements and I think we are complying with the obligations. I would not want to characterize them as onerous.

Mr. BROWN. Do you think that the requirements and the reporting that is required, do you think that this serves an adequate interest and is of sufficient benefit to justify its requirements?

Mr. MEYER. I am not really in a position to judge what the Congress thinks it should have by way of facts as to our administration of the

act. I think you deserve what you need and to the best of our ability we will give whatever information you want, subject of course, to the restrictions imposed by the confidentiality provisions of the act and limits on our manpower resources.

Mr. BROWN. Let me move into an area that was quite controversial when we were amending the act back in 1969. That is the area of strategic goods.

Is there now greater consistency between our restrictions on exports of strategic goods and the restrictions imposed by COCOM?

Mr. MEYER. If by consistency you mean are we closer today than we were January 1, 1970?

Mr. BROWN. Is there greater uniformity? There was quite a difference back then and that is why the whole question of "availability elsewhere" was inserted in our act. We recognized that our Export Control Act should not just act as a penalty to our exporters but rather should be aimed at in effect interdicting the receipt of goods by certain countries, and if they would be obtainable elsewhere from other countries of the free world, then our export controls are relatively unimportant and really are not meeting our objective. It therefore was the intent of the amendments of 1969 certainly to get our controls and the controls being exercised by the coordinating committee certainly more consistent and obtain greater uniformity.

I am wondering if that goal has been achieved or if it at least is coming closer?

Mr. MEYER. It has not been fully achieved, but it is a lot closer today than it was at the beginning of 1970. The greatest step toward achieving closer parallel, of course, has been our decontrol actions, which are continuing. Also the present COCOM review gives us the opportunity to advance our nominations for coordinated control over additional items.

Mr. BROWN. Really the discussion of sale of aircraft to nonfree world countries and the sale of other items which could have some strategic importance, that whole discussion has to be put in the context of not just this country as an exporter but all countries as exporters; is that not correct?

Mr. MEYER. Yes sir.

Mr. BROWN. And obviously the Congress in liberalizing, if we may call it such, the Export Control Act, by the legislation of 1969, the new Export Administration Act really recognized and required you in asserting your authority to restrict exports, required you to look elsewhere to see about the availability of the export to the importing countries from other free world countries. Is that correct?

Mr. MEYER. That is correct. I think the record would show, as reported in our quarterly reports, that the denials of non-COCOM commodities that are available elsewhere have really been rather limited.

Mr. BROWN. I have scanned your statement but have not had a chance to read it in detail. Do you make any specific recommendations for the legislation regarding the Export Administration Act now that you have had a couple years to work under it?

Mr. MEYER. No sir, the administration's position is for an extension as is to 1975.

Mr. BROWN. Again, Mr. Meyer, I want to thank you for being here. I want to thank you for all of the good help, counsel, advice and cooperation we received from you.

Mr. MEYER. Thank you.

Mr. KOCH. I too want to thank you, Mr. Meyer, for your testimony and for your very excellent, direct, candid responses to the questions posed to you.

At this time the hearings today will conclude and the subcommittee will stand in recess until 10 o'clock tomorrow morning at which time the administration witnesses will testify on H.R. 14412, the International Economic Policy Act of 1972.

(Whereupon at 11:40 a.m., the subcommittee recessed to reconvene subject to the call of the Chair.)

## APPENDIX

(The following additional material was submitted for inclusion in the record:)

WESTERN ELECTRONICS MANUFACTURERS ASSOCIATION,  
*Palo Alto, Calif., May 31, 1972.*

HON. THOMAS L. ASHLEY,  
*Chairman, Subcommittee on International Trade of the Committee on Banking and Currency, U.S. House of Representatives, Washington, D.C.*

DEAR MR. ASHLEY. Your letter of May 26, 1972 to Mr. Earl Wantland, relating to the Export Administration Act of 1969 has come to my attention. Since Mr. Wantland testified on behalf of WEMA earlier, this year, and since I had staff responsibility for preparing that testimony, Mr. Wantland has asked that I respond to your suggestion that WEMA submit its views on the administration of the Export Administration Act.

By way of background, WEMA is a trade association of 600 companies, primarily in the Western United States, engaged in electronics and information technology. WEMA member companies operate in the field of high technology, designing and manufacturing sophisticated components and equipment for a number of end markets. Many of our member companies face competition from abroad, but most have been successful in maintaining a technological lead and thus have been able to continue their growth.

Many WEMA member companies are actively engaged in selling their products abroad. In a recent survey of 300 WEMA member companies, approximately 58% indicated that their international sales accounted for between 5% and 15% of their total sales. Another 24% of the companies surveyed indicated that their international sales were in excess of 15% of their total sales. It is also worth noting that, in the past several years, the sale of high technology products abroad—such as those manufactured by WEMA member companies—has been the prime area in which the U.S. has continued to hold its own in the world marketplace. According to U.S. Department of Commerce statistics, the favorable balance of technology intensive exports over imports was +\$7.5 billion in 1957, +\$9.0 billion in 1964, +\$9.3 billion in 1969 and +\$9.6 billion in 1970.

While our high technology industries have tended to maintain a constant surplus of exports over imports through 1970, we are convinced that this situation will not continue if our government and industry do not work together to bring our international trade and investment policies into line with the realities of the 1970's.

In 1969 WEMA member companies supported Congressional efforts to reduce the complexities, uncertainties and delays in the administration of U.S. export controls and thus increase trade in peaceful goods with the U.S.S.R. and the other Socialist countries of Eastern Europe.

As a result of these efforts, the Export Control Act of 1949 was sharply revised and extended under a new, more liberal and more descriptive name: The Export Administration Act of 1969. In this legislation the Congress recognized that ". . . the uncertainties of (export control) policy towards certain categories of exports has curtailed the efforts of American business. The Congress also stated unequivocally that "it is the policy of the United States to encourage trade (in peaceful goods) with all countries with which we have diplomatic or trading relations." In addition to these clearly stated matters of Congressional intent, the Act provided a substantially improved framework within which:

(1) The unilateral U.S. export controls could be reduced to a level more nearly consistent with those of the other major non-Communist countries,

(2) The business community could be :

(a) consulted, consistent with considerations of national security, on proposed changes of export control policy and procedures,

(b) appraised when changes in export control policy and procedures occurred, and

(c) informed of licensing delays, given an opportunity to present additional evidence and information and, informed of the reasons for denial of an export license request.

After a slow start, the Administration has made substantial progress in reducing the level of U.S. unilateral export controls. This progress has been particularly evident during the past year-and-a-half in the area of high technological products—electronic products and instrumentation, calculators, etc.—the types of products manufactured by WEMA member firms. An example may illustrate the progress that has been made in reducing the level of U.S. unilateral controls. Prior to the adoption of the 1969 Act, Tektronix Inc., a WEMA member firm, was able to sell only \$1.25 out of every \$100 under general license—without restriction—to the U.S.S.R. and Eastern European countries, except Yugoslavia. Today, that company can sell about \$25 out of every \$100 in Eastern Europe without restriction. Despite this progress however, it is obvious that more has to be done if we are going to get down to the level of controls governing our West European and Japanese competitors.

To obtain an objective evaluation of how well the provisions of the Export Administration Act of 1969 were being implemented, WEMA, last year, prepared and distributed a questionnaire to 77 companies within its membership. Companies receiving this questionnaire were selected on the basis of likely interest or active pursuit of the East European market. 46 questionnaires—60%—of those distributed were returned. Of those companies returning the questionnaire, 19, or 41%, were engaged in selling in Eastern Europe. The percentage of sales to East European destinations ranged from less than 1% to 10% total sales.

The major reason for not selling in this area given by those companies responding to the questionnaire was simply that the firm had not tried (51%). This response is not unusual since an active selling program in Eastern Europe is both expensive and time-consuming. For this reason, many U.S. companies, especially those of small or medium size, tend to concentrate their marketing efforts in other areas of the world where orders are easier to obtain and at less expense. Other reasons cited for not selling in Eastern Europe were :

(1) the denial of too many license applications.

(2) company investigation of this market is just beginning.

(3) company policy prohibits.

(4) restraints imposed by the U.S. government.

(5) end-use documentation is too difficult to secure.

One interesting trend to emerge from the responses to the WEMA questionnaire was that 82% of the companies selling in Eastern Europe reported an increase in sales in 1970. Only one respondent reported a decrease in East European sales since the adoption of the Export Administration Act of 1969. Thus, it seems clear that the intent of the Act to encourage trade with the countries of Eastern Europe is being implemented, at least insofar as high technology products are concerned. In our view, this has come about for two reasons. First, the more liberal provisions of the Act have encouraged our member firms to increase their marketing efforts; and second, the reduction of U.S. unilateral controls has made it easier for our firms to sell their products in Eastern Europe. There are, of course, other reasons for an increase in East European sales, including an increased demand for the types of products manufactured by WEMA member firms.

Most of the questions in our questionnaire were designed to determine how effectively the Secretary of Commerce has carried out the provisions of the Export Administration Act of 1969. Specifically, we were interested in: (1) learning what progress our member firms felt had been made in relaxing the U.S. unilateral export controls; (2) if changes in export control policy and procedures were being effectively disseminated; (3) whether or not exporters were being informed whenever significant delays in licensing process occurred; and (4) if exporters were receiving adequate information whenever an export license request was denied. A quick review of some of the questions and the summarized response is revealing.

*Q. The Export Administration Act of 1969 directs the Secretary of Commerce to review any list of items whose export has been curtailed with a view to making promptly changes and revisions in such lists in furtherance of the stated policies of the Act. Relative to this:*

*Has your company been requested by the Office of Export Control to provide information and/or assistance leading to the revision of these lists?*

*If you were not contacted by the Office of Export Control for this purpose, did your company initiate any action to provide information to be used in revising the lists?*

*Have there been any revisions or changes to the lists as a result of your actions?*

R. Seventy-two percent of the companies responding indicated that they had not been asked to provide information or assistance leading to the revision of the U.S. export control list. Twelve percent of the respondents had given assistance along these lines at the request of the Office of Export Control. Another twelve percent indicated that they had initiated their own efforts to revise portions of the control list. Only three companies were aware of any changes in the U.S. control list as a result of their actions.

*Q. The Export Administration Act of 1969 directs the Secretary of Commerce to encourage the widest possible trade by keeping U.S. business fully apprised of changes in export control policy and procedures.*

*Since this policy was adopted a year-and-a-half ago, have you noticed any improvement in the Commerce Department's efforts to inform business of these changes?*

R. Forty-seven percent of the companies responding to the questionnaire indicated that they had noticed no improvement in the Commerce Department's efforts to inform businessmen of changes in U.S. export control policy. Thirty-four percent of the companies responding indicated that improvements had been made, of which the most widely mentioned was the publishing of regular up-dates on the export control regulations.

*Q. The Export Administration Act of 1969 requires that all departments responsible for administering export controls shall, if requested, and insofar as is possible:*

*"(1) inform each exporter of the considerations which may cause his export license request to be denied or to be the subject of lengthy examination and,*

*"(2) in the event of undue delay, inform each exporter of the circumstances arising during the Government's consideration of his export license application which are cause for denial or for further examination."*

*Have you contacted the Office of Export Control in the past year-and-a-half by letter, telephone or in person about your licensing problems?*

R. Fifty-nine percent of the companies surveyed indicated that they had been in contact—many on a weekly or monthly basis—with the Office of Export Control. Seventy-one percent of these companies reported that the cooperation they received was excellent. Forty-nine percent of the companies responding indicated that the Office of Export Control had, on occasion, contacted them on specific licensing problems which were holding up their applications. Ninety-five percent of these companies felt that this contact was helpful, either in securing a license, or by reducing the time it took to process the license.

*Q. The Export Administration Act of 1969 directs the Secretary of Commerce, if requested, and insofar as possible, to "inform each exporter of the reasons for a denial of export license request." Have you received such information within the past year-and-one-half?*

R. Forty-seven percent of the companies responding indicated that they had not been informed by the Commerce Department as to the reasons for a denial for an export license request within the past year-and-a-half. Nineteen percent of the respondents indicated that this information supplied by the Commerce Department was more informative than that which was supplied before the passage of the Export Administration Act of 1969.

In the course of investigating, and later compiling, the responses to our questionnaire, we became convinced that the Secretary of Commerce, for the most part, has been responsive to the wishes of the Congress as imposed in the Export Administration Act of 1969 to increase trade with the U.S.S.R. and the Socialist countries of Eastern Europe. It's true, of course, that a number of people, while agreeing that progress had been made in reducing U.S. unilateral export controls,

complained that reductions had proceeded too slowly and, in some instances, had not yet touched some special interest to them. Others, perhaps not sufficiently versed in the complexities of export policies and procedures, complained changes were not being effectively disseminated. Still others wanted what amounted to individual weekly attention to their export licensing request and, finally, some dissatisfaction arose from time to time over the amount and quality of information received whenever export license requests were denied. This latter point, of course, may pose difficulties since certain items of information connected with denials are obviously of a strategic or classified nature. Our conclusion, however, is that in general the Secretary of Commerce has followed the intent of the Congress and has, indeed, reduced the extent and complexity of U.S. export controls.

As admirable as this progress has been, however, it is WEMA's belief that there is considerable room for improvement if U.S. firms, particularly those in high technology industries, are going to compete effectively in the East European, and now the Chinese, markets. The figures tell the story.

In 1970, for example, only some \$350 million, less than 1 percent of the \$43 billion in U.S. exports, went into Eastern Europe while, at the same time, exports to Eastern Europe from other Western countries were in excess of \$8 billion. Put another way, in terms of total trade, the U.S. share of the world market in 1970 was approximately 16 percent. In Eastern Europe this share was only 3 percent.

This situation is much more dramatically expressed when high technology items, such as those produced by WEMA member firms, are considered. For example, world trade in 1969—the last year for which full marketing statistics are currently available—of “other electric measuring and controlling instruments (SITC category 72952) was almost \$1 billion.

The U.S. share of this market was approximately 36 percent—some \$350 million. In 1969 the U.S. exported more than twice the volume of SITC 72952 commodities as West Germany, over three times that of the U.K. and about seven times the exports of Japan and France.

In contrast, U.S. performance in the East European market the same year was discouraging. In 1969 free world imports into the East European market of SITC 72952 commodities was some \$55 million. West Germany's share of the East European market was some 36 percent. The United Kingdom and France each held a market share of close to 15 percent, while the United States and Japan were close together at some 7 percent.

The root causes of the poor performance of U.S. exports to Eastern Europe are many and complex. They include, for example, some things over which the United States has no control such as: (1) the historic close and complementary trading relationship existing between Eastern and Western Europe, (2) the rigidities of the Communist state trading systems and, (3) the shortage of hard currency within Eastern Europe.

The poor performance of U.S. exports to Eastern Europe is also due to the almost total lack of U.S. credits to help East Europeans purchase U.S. products and the lack of nondiscriminatory, Most-Favored-Nation (MFN) tariff treatment. Of the two, the lack of credit is probably of greatest immediate importance. Much of the growth, for example, of Western Exports to Eastern Europe has been supported by credits extended or guaranteed by governmental institutions of the exporting countries of Western Europe and Japan. Fortunately, the repeal of the Dirksen/Fino Amendment to the Export-Import Bank Act and the general strengthening of the Bank itself should go far to remedy the situation as soon as the President determines that the extension of credit to East European countries is in the national interest.

The lack of Most-Favored-Nation tariff treatment to most of the countries of Eastern Europe poses both an actual and psychological barrier to the increase of trade. The lack of MFN tariff treatment means that high Smoot-Hawley U.S. duty rates are imposed on East European products. This makes these products all the more difficult to sell in the U.S. and severely limits the ability of the East Europeans to earn U.S. dollars which, in turn, could be used to purchase U.S. goods. Many East Europeans are also insulted by the unwillingness of the United States to extend MFN treatment and see proof in this of a hostile feeling on the part of the United States. It seems clear that the East Europeans will continue to harbor feelings of distrust and unwelcomeness and that these will serve to limit communications, trade and understanding until the United States is able to take a more flexible, more realistic attitude toward the extension of MFN treatment. WEMA hopes that this necessary change in U.S. attitude will occur soon.

Another important factor severely limiting trade with Eastern Europe is a certain lack of interest, sometimes almost amounting to apathy, among many U.S. businessmen. This attitude can, for the most part, be traced to obsolete or obsolescent U.S. cold war attitudes developed in the 1950's and 1960's. While the reasons for our extremely limited penetration of the East European market are many and depressing, it seems clear that a combined effort on the part of business and the government will be necessary if we are going to be able to compete more effectively for our share of the East European and Chinese markets.

I would like to turn now to several areas in which WEMA believes the Export Administration Act of 1969 might be modified to further increase the sale of peaceful U.S. goods in the U.S.S.R., the Socialist countries of Eastern Europe and in the Peoples Republic of China.

WEMA believes that the Export Administration Act of 1969 should be extended until 1975 and strengthened so that, with few exceptions, U.S. unilateral controls would be reduced to the COCOM levels. Although significant reductions have been made, a number of unilateral U.S. controls still remain. We see no reason why the majority of the remaining controls should not also be removed. In our opinion, most of the controlled products are readily available for direct shipment from other Western countries without licensing. Unilateral licensing requirements thus increase the cost of U.S. products since, obviously, licensing costs are passed on to the end-user. Unilateral licensing also loses sales since similar delays are not required if foreign products are purchased. All things considered, the major effect of most of the U.S. unilateral controls is to deliver the market for these products to our West European and Japanese competitors who, unlike many U.S. firms, are perfectly clear about what they can sell and how long delivery will take.

We do realize that unilateral controls are justified on some occasions. In most instances, this occurs when a U.S. firm is the sole or major source of some unique technology or product which the U.S. government deems to be of strategic advantage and where the COCOM participants are unable to agree that a control is required. Although WEMA believes that, in cases like these, unilateral U.S. controls are justified, we also believe some sort of mechanism should be established whereby these controls are subject to an on-going review. All too often unilateral U.S. export controls, originally imposed for very legitimate reasons seems to have an almost indefinite existence. We are convinced a mechanism should be established whereby both unilateral and COCOM controls are specifically justified before being imposed and then examined from time to time, to determine whether they should be continued or modified.

The establishment of such mechanism is an area in which the Congress might be able to make a meaningful legislative change in the Export Administration Act of 1969.

During the 1969 hearings on the modifications of the Export Control Act of 1949 (S. 2629) in the Senate, it was recommended that an Export Expansion Commission be established. This Commission, which was subsequently deleted during later Congressional consideration, was to have conducted a study to determine practicable ways by which U.S. exports could be expanded without jeopardizing national security, to all nations with which the U.S. is presently trading. Special emphasis would have been placed on promoting trade with the Soviet Union and the nations of Eastern Europe, as well as other countries eligible for trade with the U.S. but not significantly engaged in such trade.

As a result of the Williams Commission Report, the Peterson Report and sundry other studies and commissions that have been working on a wide range of International/economic and trade problems since 1969, perhaps an Export Expansion Commission such as envisioned in S. 2696 is too broadly chartered and therefore not needed. WEMA is convinced, however, that an independent government-industry body (or bodies) focusing on specific product categories, should be established to review and make specific recommendations on the U.S. unilateral and COCOM export controls. One of the first tasks of such a group (or groups) should be a fresh, in-depth examination of the various unilateral U.S. controls in terms of current technology and U.S. strategic needs to see whether they should be retained. This same type of examination should also be made on the COCOM controls. The group (or groups) should be empowered to make recommendations for modifying various controls to the Executive Branch and also to report their findings to the Congress.

As we envision it, in addition to focusing on the present levels of U.S. and COCOM controls, this group (or groups) would also be able to provide valuable assistance to our government in preparing for COCOM negotiations. At present, although industry is sporadically consulted on few specific problem areas, the

U.S. government prepares its COCOM position and negotiates as pretty much of a solo affair. This is in decided contrast to the joint government-industry efforts of the other COCOM participants. For example, the British government and British industry have been jointly preparing for the present COCOM talks for well over a year.

The proposed government-industry composition of such a review group (or groups) would, we believe, result in a more evenly balanced, more meaningful system of export controls since government representatives, who are more familiar with strategic problems, would be brought together with industry executives who are well versed in the state of U.S. technology and who are aware of actual commercial conditions in the U.S.S.R., elsewhere in Eastern Europe and in the Peoples Republic of China. In addition, such a cooperative effort would insure greater industry support of the control measures adopted. Industries and companies which participate in the review process will be much more effective supporters of the controls than is presently the case when the government hands down regulations without consultation or participation.

WEMA believes that it is not enough to merely establish joint government-industry review boards which would work towards the lowering of the unilateral U.S. export controls and the reduction of obsolete or obsolescent COCOM controls. Positive steps must also be taken to improve the competitive position of U.S. business by reducing the amount of supporting documentation and the amount of time required to process export license applications. Among other things, this requires adequate funds and a further delegation of licensing authority. Adequate funding is important if the Department of Commerce is to employ a sufficient number of well qualified licensing officers who will be able to process cases at a rapid rate and who, through selected travel abroad, can become familiar on a first-hand basis with actual conditions existing in the countries for which U.S. products are licensed. We believe that well qualified licensing officers familiar with conditions abroad will not need a tremendous volume of supporting information and thus will be able to process cases more expeditiously. We also are convinced that an increased familiarity of actual conditions in Eastern Europe will assist the U.S. government in focusing its attention on specific areas where export controls, both unilateral and COCOM, should be relaxed. It seems clear to us that efforts to develop realistic export controls will benefit business by speeding-up the licensing process, and, at the same time, reduce the administrative burden currently placed on the Office of Export Control.

We also recommend that the authority of the Commerce Department's licensing officers be further increased so that more license applications can be processed without having to pass through the time-consuming interagency review process. Increasing the authority of licensing officers would mean, of course, that the interagency committee would have to develop additional guidelines to assist the licensing officers in making their determinations. WEMA, however, believes that these efforts would be very worthwhile since the combined effect of an increased delegation of license authority would be a speedier processing of the simpler cases through the Office of Export Control and a more rapid processing of the complicated cases through the interagency review committee.

In conclusion, I should point out that, as a result of circulating our questionnaire last year, WEMA was able to identify several specific instances where licensing delays or U.S. unilateral controls have resulted in WEMA member firms losing sales to foreign competitors in the U.S.S.R. or Eastern Europe. An abbreviated summary of several of these cases is appended (Attachment A) to this letter for your information. These examples illustrate the fact that despite the progress which has been made, WEMA companies are still not able to compete as effectively as they might for business in the U.S.S.R., the Socialist countries of East Europe and the Peoples Republic of China. We believe, however, if the Congress and the Executive Branch were to move in the direction of further reducing U.S. unilateral and COCOM controls, insuring business involvement in the overall control process, expanding the limited authority of Commerce Department's licensing officers, and maintaining well qualified and knowledgeable licensing officers in the Commerce Department, that our companies will be able to compete effectively with our European and Japanese competitors for these markets.

I hope this information is of some help to you and the other members of your Subcommittee as you consider the implementation of the Export Administration Act of 1969.

Sincerely,

EBEN S. TISDALE,  
Government Affairs Manager.

## ATTACHMENT A

Among other things, WEMA's questionnaire on the Export Administration Act sought to identify specific instances where WEMA member firms had lost business to foreign competitors because of delays in the licensing process or because an export license was denied for an item which was subsequently supplied by a non-American competitor.

Although we did not ask for detailed supporting documentation, we thought the Committee might be interested in the following summary of several individual responses to these questions.

*Company A*, a manufacturer of computer peripheral equipment, indicated that both delays and denials were of concern. For both reasons, the company reported it had lost sales to Japanese and West German manufactures.

In addition, the company reported that the shipment of certain equipment to the U.S.S.R. for a technical seminar had been denied because it was not the policy of the U.S. government to promote trade in A-item equipment which would require COCOM approval. The company was asked to withdraw its demonstration request and did so. The potential volume of business that might have been generated by this demonstration was estimated by the company to be in excess of \$1 million.

This company estimated that its U.S. exports would increase between 5%-25% if the controls administered by the Commerce Department were reduced in scope and complexity to the level of controls exercised by other COCOM countries.

*Company B*, a manufacturer of electronic high-vacuum pumps, power supplies and related equipment, reported that it lost approximately \$20,000 in orders per year to foreign competitors (principally in England, France and Italy) because of delays in licensing. The company also reported that it has been denied an export license for items which were subsequently supplied by French and British competitors.

*Company C*, a manufacturer of electronic equipment, reported that a recent U.S. policy change regarding the sale of proton magnetometers has halted any U.S. sales to the U.S.S.R. or other East European countries. Although the market potential is limited, this firm reported that British companies are continuing to sell this product in Eastern Europe.

This company estimated that its U.S. exports would increase by about 15% if the controls administered by the Commerce Department were reduced in scope and complexity to the level of controls exercised by other COCOM countries.

*Company D*, a manufacturer of computer peripheral and graphic display equipment, reported that the Hungarian government secured bids of competitors in Italy, France and Norway last year for equipment to replace an order the U.S. company lost when its license application was rejected. The company also reported that licensing delays had resulted in the loss of business to competitors in France, England and Switzerland.

The company estimated that its U.S. exports would increase by about 20% if the controls administered by the Department of Commerce were reduced in scope and complexity to the level of controls exercised by other COCOM countries.

*Company E*, a manufacturer of computer peripheral equipment and components, reported that in February of this year it was advised that it would be unlikely to secure approval for a license to export its machinery, equipment and manufacturing processes (principally a soldering technique) for the establishment of a printed circuit board manufacturing facility to make both multi-layer and doubled-sided circuit boards in Bulgaria. The company estimates that the value of this export would exceed a half million dollars. The company also reported that both types of circuit boards in question are presently being manufactured in every Eastern European country including Bulgaria, on commercial equipment built in Western Europe and Japan. Additionally, it stated many thousands of such boards were sold to the Soviet Bloc by West German firms in 1970 to supplement local production.

NATIONAL FOUNDRY ASSOCIATION,  
Westchester, Ill., June 1, 1972.

HON. THOMAS L. ASHLEY,  
Chairman, Subcommittee on International Trade, Committee on Banking and  
Currency, U.S. House of Representatives, Washington, D.C.

DEAR CHAIRMAN ASHLEY: We appreciate this opportunity of submitting a request for extending the Export Administration Act of 1969 beyond its current expiration date of August 1, 1972 to June 30, 1975.

This statement—which we ask be made part of the record of hearings on the subject—is offered on behalf of five national foundry trade associations. These organizations are the National Foundry Association, the Gray and Ductile Iron Founders' Society, the Malleable Founders' Society, the Non-Ferrous Founders' Society and the Steel Founders' Society of America.

We urge your Subcommittee's favorable consideration of extending the Export Administration Act of 1969 for three primary reasons:

1. Increased and unrestricted exports cause severe shortages of copper base scrap, copper base alloy scrap, low sulphur coal, metallurgical coke, ferrous scrap, nickel bearing scrap and other critical materials upon which our industry depends for its existence;

2. With unrestricted exports the demand will frequently exceed the supply thus causing spiraling inflationary prices at a time when the foundry industry is doing its best to cooperate with the national economic stabilization program; and

3. Future shortages of materials critical to our industry could not help but threaten employment.

Exports of raw materials have had a very serious effect on our industry. At a time when ecologists were pressuring power plants to use low sulphur coal, the foundry industry found its usual coke supply being diverted to power plants or being exported to Japan. The same situation existed with scrap. Only the recession of 1971 prevented serious disorders in normal supply and demand relationships on coke and scrap.

We feel an extension of the Act would keep in existence the necessary machinery to implement export controls should chaotic conditions caused by unrestricted exports dictate their exercise.

Biographically, the combined memberships of the associations presenting this statement operate 750 of the leading foundries in the country. Forty-five states are affiliated with the associations having members scattered throughout the United States. We also have members in Canada and abroad.

The foundry industry, as you know, plays a substantial part in the business world and the economy of the United States. It ranks sixth among all manufacturing industries based on value added by manufacture. The Commerce Department's Census of Manufacturers indicated that this value added by manufacture of the foundry industry approach six billion dollars annually.

Total casting production of the industry last year exceeded twenty million tons having a dollar value of over ten billion dollars. Despite this ranking and importance as a basic industry in the United States, the great majority of foundries are small companies with 82 percent of U.S. foundries employing less than 100 workers. Total industry employment is approximately 400,000 workers, many of whom are from minority groups.

We would be grateful for your consideration of the foregoing comments.

Respectfully yours,

WALTER M. KIPLINGER, JR.,  
Washington Representative.

HEWLETT-PACKARD CO.,  
Palo Alto, Calif., June 1, 1972.

HON. THOMAS L. ASHLEY,  
Chairman, Subcommittee on International Trade, Committee on Banking and  
Currency, House of Representatives, Washington, D.C.

DEAR CHAIRMAN ASHLEY: A large portion of Hewlett-Packard's business occurs outside the United States and since export controls vitally affect this portion, I wish to submit the following comments on the administration of the Export Administration Act of 1969. The gist of these comments was also supplied to the Senate Subcommittee on International Finance on March 14, 1972 during its hearings on S. 1487, cited as "A Bill to Provide for Continuation of Authority for Regulation of Exports."

## THE HEWLETT-PACKARD COMPANY

The Hewlett-Packard Company is a major designer and manufacturer of test instrumentation used in the fields of electronics, medicine and chemistry for scientific research, engineering, production and maintenance. The company also designs and manufactures sophisticated calculators and engineering-oriented computers and selected peripheral equipment.

In fiscal 1971 (year ending October 31) shipments reached an all time high of 375 million dollars while the value of orders received totaled some 397 million dollars. 41% of these orders, 164 million dollars, were received from customers outside the United States, mostly in Western Europe, Canada, Japan, Australia and the other more highly industrialized countries of the western world. 125 million dollars, or approximately 76% of this international business, came from Hewlett-Packard's fifteen U.S. factories. The balance was supplied from Hewlett-Packard's four International factories which, incidentally, in 1971 used some 9 million dollars worth of U.S. origin parts and components in the manufacture of their products.

We anticipate further sales increases in the years that lie ahead. Predictions indicate that our international business will continue to grow at a rapid rate. By 1976 international sales may reach 300 million dollars a year—almost double the present international sales volume.

## MARKETING OPERATIONS IN THE U.S.S.R. AND EASTERN EUROPE

Up to the end of 1967 we did very little to stimulate the market in the USSR and in the Socialist countries of Eastern Europe.

Late in 1967, however, we decided we could no longer afford to ignore these rapidly growing markets. We were convinced that we should undertake a more active sales program against the day when tensions would ease sufficiently to allow a considerable increase in U.S. trade or else we would find it virtually impossible to break into a market which had gone to our West European and Japanese competitors, largely by default.

As a result, we began a serious, long-range program to increase our sales of non-strategic products in the USSR and Eastern Europe. This effort, started modestly with a single sales engineer and his secretary, has now expanded to Vienna-based sales force of twenty, approximately half of whom are technically trained sales engineers. Each sales engineer has an extensive travel schedule which enables him to provide on-the-spot assistance to Soviet and East European purchasers and end-users. In addition, in 1968, and in subsequent years, Hewlett-Packard participated in a number of exhibitions, trade fairs and private showings in the USSR and elsewhere in Eastern Europe.

Over the years these efforts have caused a considerable increase in our Soviet and East European sales—from approximately \$100,000 in 1967 to \$3.5 million or some 3 to 4% of our European business in 1971. Further substantial increases are anticipated in the years that lie ahead.

## THE REDUCTION OF UNILATERAL U.S. EXPORT CONTROLS

During the congressional hearings on the Export Control Act of 1949 almost three years ago, many businessmen advocated a major reduction in unilateral U.S. export controls. Reduction was supported on the grounds that most of the products under unilateral control were freely available from other Western countries and, as a result, U.S. business was being penalized by the cost of preparing applications and by the time delays involved in the licensing process.

Exhibit I, attached, is a chart indicating the effect of export controls on our world wide business prior to passage of the Export Administration Act of 1969. In each of the three cases shown internationally imposed COCOM controls affected the sales of our competitors with similar product mixes in other COCOM participating countries.

As a U.S. firm, however, we also had to contend with unilaterally imposed controls which were not duplicated by the other COCOM countries. These unilateral U.S. controls affected some 6 percent of our sales to friendly countries and a huge 53 percent when we dealt with the USSR and most of the Socialist countries of Eastern Europe. In fact, in this latter category, we were able to sell only \$3 out of every \$100—mainly medical equipment such as electrocardiographs—without restriction under General License.

The Congress, in drafting and passing the Export Administration Act of 1969, took these problems into account declaring, "It is the policy of the United States . . . to encourage trade with all countries with which we have diplomatic or trading relations, except those countries with which such trade has been determined by the President to be against the national interest . . .". This change in emphasis from the essentially negative provisions of the prior Export Control Act of 1949 encouraged U.S. exporters to actively sell in a number of areas where previously they were reluctant to enter. The clearly expressed intent of Congress to *promote* trade in peaceful goods also gave the Administration ample authority to reduce the unilateral U.S. export controls and to modify those licensing practices which had been weighted towards denial.

Exhibit II, based on our world wide business during the six-month period, August 1, 1971 to January 31, 1972, shows the present effect of export controls. Comparison with Exhibit I dramatically illustrates the reduction in unilateral U.S. export controls which has occurred since the passage of the Export Administration Act of 1969. Unilateral U.S. controls to friendly countries have been reduced from 6 percent to about half a percent. In the case of the USSR and most of the countries of Eastern Europe, the drop has been dramatic, from 53 percent to about 5 percent.

If our company's experience is typical, it is clear that the Administration has indeed followed the intent of the Congress and removed or reduced many of the unilateral controls so that the U.S. control list is more in line with the COCOM list than it has been for many, many years.

Although the reduction of unilateral U.S. controls has been considerable, I believe that certain categories should be further liberalized. It is true that the potential sales volume in these categories is relatively small, certainly compared to the volume of items under unilateral controls several years ago. I believe, however, that these residual controls have an adverse effect on U.S. exporters, would-be purchasers and foreign competitors far in excess of the possible sales volume. For example, they tend to inhibit some U.S. exporters who, perhaps overly concerned with obsolete or obsolescent cold war attitudes, justify continued inaction by seeing proof in these controls of how difficult it is to market in the USSR and the Socialist countries of Eastern Europe. Also, there are a number of Soviet and East European purchasers who retain bitter memories of seemingly endless licensing delays in obtaining U.S. products. The residual unilateral U.S. controls keep these memories alive as do a number of our competitors in Western Europe and Japan. These competitors find that magnifying the effect of the remaining controls is a useful sales device—"the U.S., despite some changes, is still restrictive so you should buy our products instead."

The Hewlett-Packard Company has expressed its concern over the remaining unilateral U.S. export controls on several occasions; most recently and comprehensively in November 1971 when we submitted the list attached as Exhibit III to the Office of Export Control. The Office of Export Control has indicated, both verbally and in writing, that further reductions in the unilateral controls over some of the entries listed in Exhibit III are in process. In fact, the oscilloscope cameras and accessory items shown as the last entry (86140-11) were decontrolled on April 20, 1972. It is possible that other categories may be decontrolled in the near future, however, since in some areas the considerations involved are related to the present COCOM discussions it is likely that relatively little further action will occur until late this summer, after the COCOM negotiations have been concluded.

Another reason for paying close attention to the remaining unilateral controls is that the current COCOM negotiating sessions are likely to lead to further reductions in international controls and many U.S. exporters believe, without continued concern being expressed, new unilateral U.S. controls might take their place. A replacement of obsolete COCOM measures with unilateral U.S. controls would be one of the last things U.S. exporters would want to see.

The reduction in unilateral U.S. controls has had a beneficial effect on the Office of Export Control and on some of the other interested agencies of the U.S. government for they have been able to concentrate more of their time and effort on those license applications subject to COCOM controls. As a result, in some cases the U.S. reviewing process has been expedited. In other cases, borderline applications have been examined more closely and, in some instances, approved. Unfortunately, on many occasions the full positive effect of this ability to concentrate more resources on difficult cases has been negated by force reductions within the U.S. government and/or by lack of sufficient funds to attract and retain the high caliber licensing personnel who can understand and speedily process these more complicated COCOM applications.

## DELAYS IN THE LICENSING PROCESS

Despite the relative success of the Secretary of Commerce in carrying out the intent of the Congress—reducing unilateral U.S. export controls; issuing bulletins more frequently to inform the U.S. business community of changes in export control policies and procedures; informing U.S. exporters of excessive delays in the licensing process; and explaining, within the limitations imposed by national security, the reasons why license applications are denied—a major area remains where improvement is necessary if U.S. exporters are to approach purchasers in the USSR, Eastern Europe and, now, the People's Republic of China on more nearly the same level as their West European and Japanese competitors. This area is the considerable time and effort presently required to make formal license applications and the delays encountered in obtaining decisions.

Time delays, serious in any transaction, are especially serious in dealing with these markets where U.S. suppliers already face several built-in disadvantages. These include remoteness, lack of familiarity with the market, the fact that long shipping intervals are required, the relative lack of hard currency, the unwillingness or inability of the U.S. to accept merchandise in payment for U.S. goods, etc.

It is difficult to assign an average figure, but as a rough estimate we find it takes two to three weeks to get supporting documentation from a Soviet or East European purchaser or end user. It also takes a day or so to prepare and file a formal U.S. export license application or re-exportation request.

The time required, however, to process an application can be examined more objectively. For example, in the seven month period August, 1971 through February, 1972, Hewlett-Packard prepared and filed license applications for 78 transactions with the USSR and the Socialist countries of Eastern Europe. Sixteen of these transactions involved products subject to unilateral U.S. export controls and were approved with an average processing time of  $2\frac{1}{2}$  weeks. This is down substantially from what it was three years ago.

At this point some may argue that a total of 5 or 6 weeks— $2\frac{1}{2}$  or 3 to obtain documentation and prepare a license application, plus  $2\frac{1}{2}$  or 3 processing time—with no denials, doesn't greatly inhibit the sale of U.S. products. However, this is not true. During this average 5 or 6 week period, neither we nor our customers know if approval will be forthcoming. Besides, in one-half the cases, the delay is greater than 5 weeks. Under circumstances such as these, there is little wonder that many Soviet and East European purchasers prefer to buy similar products from West European or Japanese manufacturers who face no licensing delays and who often can ship their products directly on receipt of an order.

The remaining 62 of the 78 transactions involved products listed as "A" on the U.S. Commodity Control List, i.e., were subject to COCOM controls. By mid-March 1972, 40 of the 62 were approved or denied. Those which were denied were accompanied by an explanation of some of the broad reasons for denial. It's true that some of these explanations were quite thin, but I assume that this was because of security problems.

Three of the 62 had been returned with a request for more information and 19—10 of which had been submitted in the previous month—were still under consideration. Processing on the 9 remaining had been underway over a time-span of from 6 to 21 weeks with both an average and a median of 14 weeks. These obviously were the more difficult cases.

Of the 40 transactions which had been processed, 20 were approved or denied within 5 weeks. This rather short time interval suggests that processing was completed wholly within the Department of Commerce. Another 6 applications took from 6 to 8 weeks to process and so may also have been exposed to inter-agency review. The processing of the remaining 14 transactions took from 11 to 25 weeks, with a median of 15 weeks and an average of almost 17 weeks. These transactions undoubtedly underwent the full Department of Commerce/interagency review process and many were probably sent to Paris for COCOM review as well.

If we look at the 40 approved or denied transactions as a group we find a median processing time of  $5\frac{1}{2}$  weeks and an average processing time of  $8\frac{1}{2}$  weeks. Adding an estimated  $2\frac{1}{2}$  to 3 weeks preparation time to these figures gives a total median delay of about 8 weeks and a total average delay of about 11 weeks.

A further examination of the  $5\frac{1}{2}$  to  $8\frac{1}{2}$  week processing time is useful. This is a difficult task, however, for it is impossible for private companies or individuals to accurately determine the amount of time spent in screening and policy determination within the Department of Commerce and in inter-agency review. We do

know, however, that as a rule of thumb our competitors in other COCOM countries allow approximately one month for a decision on a COCOM controlled item. If this is correct, I would think it would be safe to assume that the U.S. processing time on our 40 transactions ran between 3½ and 6 weeks.

If this estimate is correct we can say that Hewlett-Packard, as a U.S. exporter, faces an additional delay of at least one month in the processing of its U.S. export license requests for COCOM controlled products. It should be borne in mind that the figure of one month is an average and that in half the cases additional delays exceed a month, sometimes substantially. Similar delays do not hinder our competitors in the other COCOM countries whose governments, so far as I can determine, go through very little, if any, screening process prior to exercising their COCOM delegated licensing authority or to submitting license requests to Paris for COCOM review.

Delays of this type were not so important years ago when the U.S. had little interest in developing the market in the USSR and the Socialist countries of Eastern Europe and, in addition, enjoyed a near monopoly of the products of high technology. This is not the case today. Today the United States is interested in developing the market and, as we all know, there are many competent competitors abroad. Under these conditions licensing delays of even one or two months can easily mean the difference between the sale of a U.S. product or a sale of a foreign product.

It is well to point out at this time that very few of our USSR and East European orders have been cancelled despite the fact that licensing delays of from two to three months and even more are common. This is probably because such delays are anticipated. Once a purchaser makes up his mind that the characteristics of a U.S. product are so unique or desirable that no other will do, he is prepared to wait for a decision. The real loss is in those orders which are placed on West European or Japanese firms rather than U.S. suppliers, because delays for U.S. soul-searching cannot be tolerated or because of greater confidence in the ability of the foreign firm to deliver.

#### RECOMMENDATIONS

I believe the Export Administration Act of 1969 should be extended for a three year period, i.e., to 1975. In addition, I have two recommendations which I believe would speed up the licensing process and improve the determination and administration of export controls.

The first recommendation, designed to speed up the U.S. licensing process, might be accomplished through the inclusion of an additional lettered paragraph under Section 4 of the present Export Administration Act of 1969. This paragraph would be to the effect that:

"The Secretary of Commerce, in conjunction with other U.S. government agencies to whom export control authority or responsibility has been delegated, shall, consistent with the other provisions of this Act, use all practical means available to expedite the processing of export license application."

I believe the provisions of this new paragraph would encourage the Secretary of Commerce to speed up the processing of license applications by seeking an increased delegation of licensing authority to the Office of Export Control. This would require, of course, close coordination with the interagency review group and the establishment of additional guidelines.

I also believe that under this new paragraph the Secretary of Commerce and the responsible Congressional committees would be more inclined to see that adequate funds and other support are provided for the administration of export control activities. This includes the hiring and retention, within the Commerce Department, of an adequate number of technically qualified licensing experts. These experts should be encouraged to obtain a first-hand exposure to actual conditions by visiting, where possible, the areas subject to licensing controls. I believe that this personal knowledge would reduce the need for detailed, difficult-to-obtain, supporting information and, in conjunction with the increased

licensing authority of the Office of Export Control, would substantially speed the processing of export license applications.

My second recommendation would create a joint government/business committee (or committees) of technically competent people who, on a periodic and continuing basis, would review the unilateral U.S. and the COCOM controls and the government's program of administering them. I believe that such a committee (or committees) would provide the business community with a clear, first-hand impression of the objectives of the U.S. government in exercising export controls. On the other hand, the government participants would gain from the business community's ability to contribute up-to-date information as to the state of U.S. technology and actual commercial conditions occurring in the various areas subject to licensing controls. I believe the recommendations of the committee (or committees) would be especially effective in helping to chart the manner in which U.S. export controls are administered. In addition, the active participation of the business community would make the administration of the controls considerably more effective. Finally, I believe, the functioning of a technically competent joint government/business committee (or committees) would be of major assistance to the U.S. government in its continuing review and updating of both the unilateral U.S. controls and the COCOM controls.

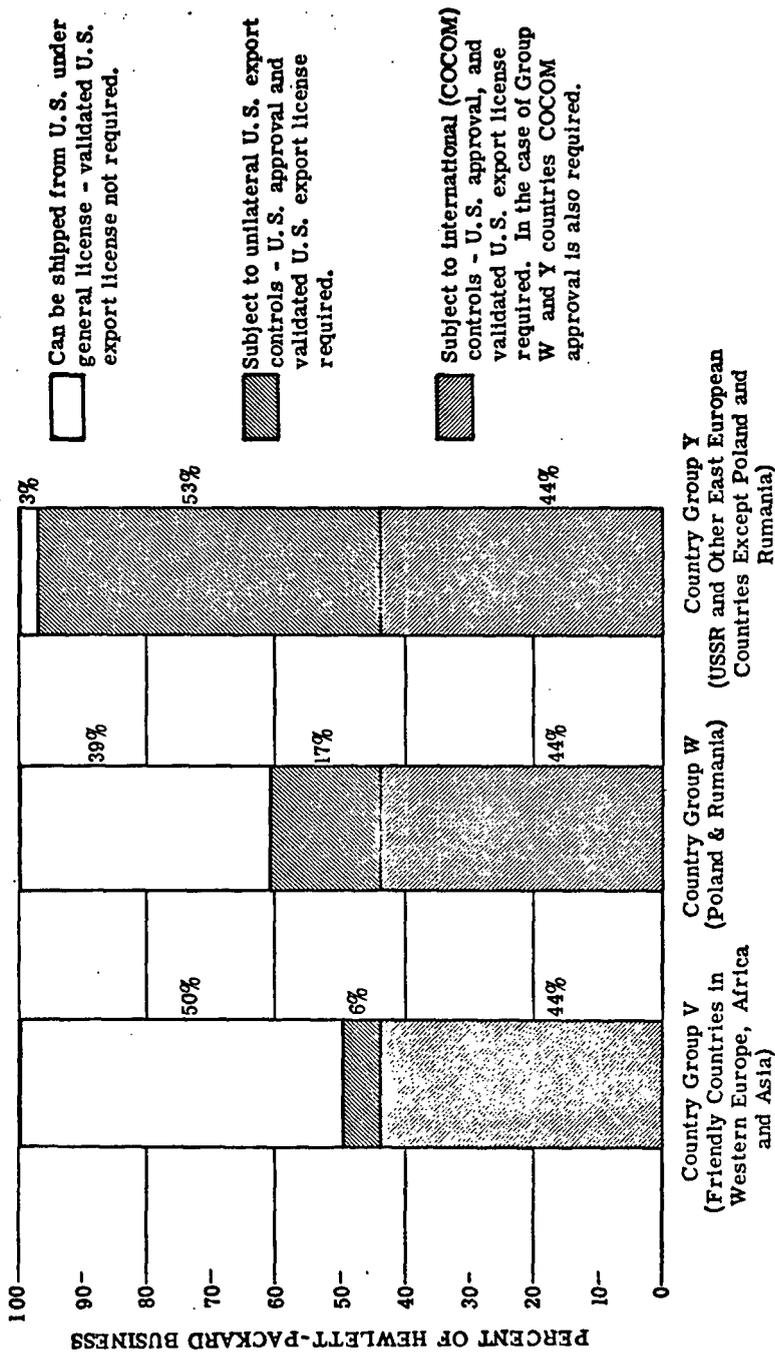
#### CONCLUSION

Congressman Ashley, in the years that lie ahead Hewlett-Packard foresees a continued growth in the sale of peaceful goods to the USSR, the Socialist countries of Eastern Europe and the People's Republic of China. The success of our activities, however, is largely dependent upon the U.S. government's continuing interest in East-West trade and a relaxation of the major impediments to this trade. I am referring to further reductions in obsolete or obsolescent unilateral and COCOM controls, the extension of medium term credits and, finally, the judicious extension of Most-Favored-Nation tariff treatment.

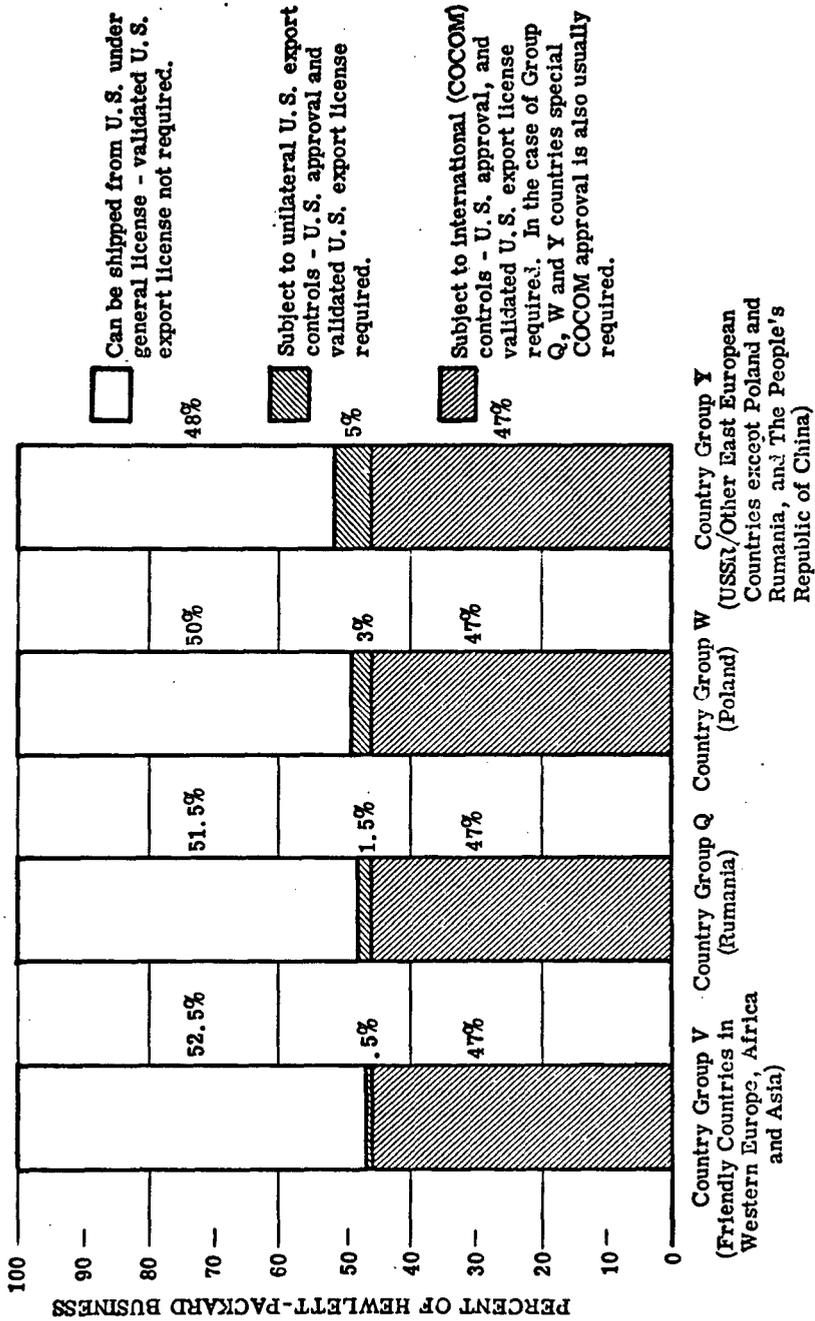
For these reasons and the continuing need to maintain controls over strategic goods—goods which would significantly assist an enemy or a potential enemy in his ability to produce our use weapons of war—the Hewlett-Packard Company supports extension of the Export Administration Act of 1969. We also hope that consideration will be given to additional measures such as those suggested which would speed up the licensing process and improve the determination and the administration of the U.S. program of export controls.

Sincerely,

T. A. CHRISTIANSEN,  
*Manager, International Trade Relations.*



Percent of Hewlett-Packard business during first six months of Fiscal 1968 affected by international (COCOM) and unilateral U.S. export controls.



Percent of Hewlett-Packard business during the six month period August 1971 - January 1972 affected by international (COCOM) and unilateral U.S. export controls.

Exhibit III  
November 29, 1971  
Page 1 of 3

HEWLETT-PACKARD PRODUCTS  
SUBJECT TO UNILATERAL U. S. EXPORT CONTROL  
CATAGORIES B,J,D,E & F

CCL ENTRY NO.	BIC PROC. CODE	PRODUCTS CONTROLLED	
		MODEL NUMBERS	DESCRIPTION
723-3 B (ECB 50)	272	00501B, 00502B, 00506B, 00514B, 10120A, 10121A, 10122A, 10123A, 10124A, 10126A, 10127A, 10128A, 10132A, 10501A, 10502A, 10503A, 10507A, 10512A, 10516A, 10517A, 10519A, 11000A, 11001A, 11035A, 11086A, 11143A, 11500A, 11501A, 11508A, 15121A, 15122A, 15123A, 15524A, 15525A, 15539A, 15540A, 15543A, 15548A	Interconnecting coaxial cable assemblies -- with connectors and fabricated in specific lengths
7295-6a B (ECB 50)	612	3460B, 3462A  3461A  2014A, 2014B	Digital Voltmeters  Digital Voltmeter Plug-in  Digital acquisition systems
7295-14 J (ECB 50)	618	410B, 410BR, 410C, 411A, 411AR, 8405A  11036A, 11040A, 11042A, 11043A, 11044A, 11045A, 1121A, 11544A, 11570A, 11576A  355C/D/E/F, 3750A, 393A  774D, 775D  360A  18040A, 18041A	High frequency voltmeters  High frequency voltmeters accessories -- probes, dividers  Attenuators  Coaxial dual directional couplers  Low pass filter  VHF radio equipment accessories antenna, RF probe
7295-24 J (ECB 47)	628	5201L, 5202L, 5203L  5583A, 5590A  5554A  10630A, 10641A	Nuclear scalars  Nuclear scaler plug-ins-- analyzer, scaler timer  Preamplifier  Nuclear instrumentation acces- sories -- delay line, interface kit

CCL ENTRY NO.	BIC PROC. CODE	PRODUCTS CONTROLLED	
		MODEL NUMBERS	DESCRIPTION
7295-7 D (ECB 50)	618	5221A/B, 5300A, 5321A/B, 5330A/B, 5332B	Lower frequency counters
		5301A, 5304A, 5310A	Lower frequency counter plug-in
		10508A, 10533A, 10547A, 10548A	Lower frequency counter acces- sories -- decade extender, recorder, interface
7295-50 D (ECB 50)	418	302B, 501, 502	Vapor pressure & membrane osmometers
		18501A, 18502A, 18503A, 18504A, 18505A, 18506A, 18507A, 18508A, 18509A, 18510A, 18511A, 18512A, 18513A, 18514A, 18515A, 18516A, 18517A, 18518A, 18519A, 18520A, 18521A, 18522A, 18523A, 18524A, 18525A, 18526A, 18527A, 18528A, 18543A, 18544A, 18545A, 18548A, 18549A, 18550A, 18561A, 18562A, 18563A, 18569A, 18572A, 18573A, 18574A, 18575A	Vapor pressure & membrane osmometer accessories -- probes thermostats, syringes, tempera- ture controllers, membranes, etc
7295-87 D (ECR 1 Jun)	418	2801A	Quartz thermometer
		2830A, 2831A, 2833B, 2850A, 2850B, 2850C 2850D	Quartz thermometer accessories temperature sensors, etc.
8619-57 E (ECB 50)	623	5582A	Nuclear Pulse linear amplifier

CCL ENTRY NO.	BIC PROC CODE	PRODUCTS CONTROLLED	
		MODEL NUMBERS	DESCRIPTION
7295-90 F (ECR 1 Jun)	418	508A/B/C/D	Tachometer generators
		5210B	Tachometer
		3800A/B, 3801A/B	Electronic distance meters
		11401A, 11410A/B, 11411A/B, 11412B/C/D, 11413B	Electronic distance meter accessories
		4905A, 4914A, 4916A, 4917A, 4918A	Ultrasonic translator detectors
		18002A, 18003A, 18006A, 18013A, 18014A, 18016A, 18017A, 18020A, 18021A, 18023A, 18024A, 18043A, 18100A, 18101A, 18103A	Ultrasonic translator detector accessories
		4329A	High resistance meter
		16008A	Resistivity cell for high resistance meter
		8051A, 8051P, 8052A, 8055A, 8056A, 8057A, 8062A, 8064A, 8065A	Audio test equipment - loudness analyzer, sound level recorder, octave filters, noise generator audio spectrum analyzer, etc.
		15108B, 15109B, 15114A, 15117A, 15118A, 15119C/D, 15124A, 15125A, 15127A, 15134A, 15142A	Audio test equipment accessorie microphones, microphone pre- amplifiers, microphone power supply, sound level calibrators
		5950A	ECA spectrometer
		8460A	Molecular rotational resonance spectrometer
		15170A	Piezoelectric accelerometer
86140-11 F (ECB 50)	218	195A, 197A, 198A	Oscilloscope cameras
		10352A, 10353A, 10354A, 10355A, 10356A, 10357A, 10358A, 10360A, 10361A, 10362A, 10363A, 10365A, 10367A	Oscilloscope camera accessories film backs, viewing hoods, beze adapters, carrying cases, etc.

STATEMENT OF ARTHUR E. BAYLIS, NATIONAL DIRECTOR, NATIONAL COMMITTEE  
ON INTERNATIONAL TRADE DOCUMENTATION

My name is Arthur E. Baylis and I am submitting this statement as the National Director of the National Committee on International Trade Documentation known as NCITD, regarding the extension of the Export Administration Act of 1969. The NCITD neither supports nor opposes such extension—instead our unique position is the same as it was when I testified before the Congress in 1969 on the subject of the extension of the Export Control Act—namely, that whatever legislation is enacted should be conditioned on elimination of, rather than further creation of, paperwork.

NCITD, which is headquartered in New York and has agencies in Washington and San Francisco, is a voluntary, non-profit, privately-financed organization, which is dedicated to simplifying and improving international trade documentation and procedures—in short, the prevention and elimination of the unnecessary and unwanted “paperwork” which has long been the bane of international shipments.

In April, 1969 I testified on behalf of NCITD before the Senate Committee on Banking and Currency relative to proposed legislation which was ultimately enacted as Public Law 91-184, the Export Administration Act. This is the same statute which is now before this Committee for extension. At that time NCITD was asked to prepare and submit language to be incorporated in the law which would insure that documentation abuses and the proliferation of paperwork would not again be built up. As a result a provision to that effect was written into the Act, under the title “Enforcement”, as section 7(d) which reads:

(d) “In the administration of this Act, reporting requirements shall be so designed as to reduce the cost of reporting, recordkeeping, and export documentation required under this Act to the extent feasible consistent with effective enforcement and compilation of useful trade statistics. Reporting, recordkeeping, and export documentation requirements shall be periodically reviewed and revised in the light of developments in the field of information and technology. A detailed statement with respect to any action taken in compliance with this subsection shall be included in the first quarterly report made pursuant to section 10 after such action is taken.”

Since my testimony on this subject in 1969, NCITD has actively progressed its work to eliminate international trade documents and has achieved considerable success. We have made widespread use of research techniques and now have a reservoir of information to identify the evils of paperwork and what causes them. The scope of our work covers those international papers and related procedures that are caused by government, industry, or both. It also encompasses similar areas where the responsibility lies with foreign governments or foreign commercial parties.

The magnitude of the “jungle” of paperwork that envelops the international commerce of the United States has been conservatively estimated to cost United States exporters and importers at least six and one-half billion dollars (\$65,500,000,000.00) per year just to fill out and process the required documents involved, not including any transportation costs. This staggering figure was substantiated in a recently completed Research Study jointly prepared by NCITD and the Department of Transportation (DOT) Office of Facilitation. The same Study shows that the average documentation cost per international shipment amounts to more than three hundred and fifty dollars (\$350.00), divided over three hundred and seventy-five dollars (\$375.00) for exports and over three hundred and twenty dollars (\$320.00) for imports, a figure very often substantially higher than the total value of the shipment itself. The cost of this paperwork can be likened to a nontariff trade barrier, recognized and acknowledged by everyone to exist, effectively strangling opportunities for international trade, particularly in the case of small companies, and yet being so difficult of solution that none of the companies acting individually have been able themselves to penetrate or solve the maze of paperwork.

NCITD through sole concentration on this effort has tackled the problem with the cooperation of the United States Government and through working in group liaison with many organizations throughout the world that are dedicated to the same purposes. Already we know that the paperwork required to export from the United States and to import into this country are far more burdensome, voluminous, overlapping, and costly than those required by any other nation throughout the free world. In this connection, and before turning to the subject

of extension of the Act, permit me to outline in some detail, the highlights of the NCITD-DOT Research Study previously referred to. I believe you will find them entirely germane to the purposes of the topic under discussion.

This Study, entitled "Paperwork or Profits? in International Trade" was prepared from actual live shipments and the resultant data developed jointly by NCITD and the DOT Office of Facilitation and catalogues and analyzes the practices and procedures relating to international trade documentation and recommends corrective steps to eliminate paperwork in world commerce.

As is stated in the Acknowledgement to the Study, hundreds of parties participated in the research by providing factual data based on their own experiences. Their involvement covered not only their own sphere of responsibilities but also included assistance in going beyond to identify the later participants that were involved with the documents and the shipments.

Turning to the "Highlights" of the Study, the actual data developed conclusively confirms that complex and costly documentation is one of the major problems concerning international trade. While considerable attention has been devoted to trade expansion, relatively little attention has been directed to solving the expensive and burdensome practices of international trade and transport documentation.

The magnitude of U.S. international trade is shown by government figures for the fiscal year ending June, 1971, which reveal that

All international shipments totaled.....	18,000,000, of which
Export shipments totaled.....	10,000,000
Import shipments totaled.....	8,000,000
In terms of dollar value, the statistics indicated that	
All international shipments were valued at.....	\$86.3 billion, of which
Export shipments were valued at.....	43,900,000,000
Import shipments were valued at.....	42,400,000,000

The effort concentrated in this study to identify, analyze, quantify, and determine the cost of specific documentation practices and procedures has produced and correlated an abundance of significant data not previously available. This information focuses attention on the documentation problem and provides the basis for the corrective actions being recommended.

Startling statistics from the study show that: A total of 46 different types of firms and government agencies regularly are involved in international trade . . . As many as 28 of these parties may participate in a single export shipment . . . A total of 125 different types of documents are in regular and special use . . . The 125 types of documents represent more than 1000 separate forms . . . A total of 80 types of documents are in regular as opposed to 45 in special use . . .

Average shipments involve 46 separate documents, with an average of over 360 copies per shipment being employed . . .

U.S. international trade annually creates an estimated 828 million documents and these generate an estimated 6½ billion copies. . . .

Average export and import shipments required 64 man-hours to prepare and process, split on the average of 36½ man-hours for an export shipment and 27½ man-hours for an import shipment . . .

Total U.S. international trade documentation annually consumes more than a billion man-hours, equivalent to more than 144 million days of work, and equal to 600 thousand work years . . .

Average documentation cost per international shipment amounts to \$351.04, divided \$375.77 for exports and \$320.58 for imports . . .

On the basis of current shipping volumes, total documentation costs aggregate almost 6½ billion dollars a year and, represent 7½ percent of the value of the total U.S. export and import shipments. . . .

By identifying many of the problems and relating them to specific documents and procedures, the study established a foundation on which recommendations can be supported. Recognizing that the degree of involvement varies widely between parties, companies, and governments, the suggested corrective steps and actions provide opportunities for all to reap the benefits of simplified documentation.

As an outcome of the study, a number of "Recommendations for Progress" have been developed for the effectuation of the program to simplify and streamline international trade documentation and procedures. These recommendations total twenty-eight (28) in number and are divided into three categories representative of the areas of greatest corrective interest. These are General, Government,

and Industry; the Government category consisting of eleven Recommendations. While many of the problems do not stand alone, but are closely interlocked, the fact that more than one-third of the 28 Recommendations most closely involve Government action primarily, is a clear indication of the significance of the Government role in both the creation of and the need to eliminate or control paperwork and any possible occasions for the creation of paperwork.

A listing of these Recommendations involving Government will give an idea of their scope and their potential for improving the atmosphere and operational realities of our Nation's foreign commerce, particularly in view of the recently developing opportunities for increased East-West trade.

They are as follows ( listed according to the numbering employed in the study ) :  
Government :

9. Replace the Government Bill of Lading with the Commercial Bill of Lading. Which is Now Aligned with the U.S. Standard Master for International Trade.

10. Review, Sponsor and Approve All Existing, New or Revised Transport Documents on a Centrally Coordinated Basis.

11. Sponsor and Encourage Programs of Statistical Exchange Between the United States and Other Countries on a Bi-Lateral Basis to Reduce Documentation and Simplify Collection of Import-Export Data.

12. Promote Inter-Government Programs to Eliminate "Counter Documentation" imposed by One Country in Response to Actions Taken by Another Country.

13. Encourage Other Governments to Grant Reasonable Tolerance Between Import License and Actual Shipment Data.

14. Simplify, Combine, Standardize, and Align Import Entry Documentation with the U.S. Standard Master for International Trade to Reduce the Complexity of Import Documentation.

15. Increase the Dollar Ceiling for Informal Entry of Merchandise.

16. Examine Customs Forms, Practices and Procedures involved in Administering Drawback to: (a) Simplify the Method by which Applicants Can Qualify and, (b) Provide for Payment of Drawback to Certified Recipients on a Current Basis.

17. Provide that Customs Adopt Commercially Acceptable Methods of Payments for Import Duties.

18. Replace All Special AID International Forms with Standard Commercial Documents.

19. Simplify Regulations and Procedures for the Issuance of Export Licenses by the Office of Export Control.

On January 26th of this year I testified before the Subcommittee on Foreign Trade and Tourism of the Senate Commerce Committee on S.2754, the proposed "Export Expansion Act of 1971." On that occasion I outlined the results of the NCITD-DOT Research Study as I have done here and emphasized the absolute necessity, while seeking means to assist the foreign commerce of the United States, to avoid the proliferation of paperwork—and the extra personnel to process that paperwork—that too often springs up when Government agencies are established.

Since my testimony in 1969 and the enactment of Section 7(d) of the Export Administration Act of 1969, there has been improvement in the enforcement of the Act and in corrections in paperwork administration. Even now, the Office of Export Control (OEC) is working with industry on a proposal to simplify further the handling of the Shippers' Export Declaration, a separate form which we believe has outlived its usefulness and should be replaced by simpler techniques as soon as possible.

The OEC is to be commended for the improvements they have undertaken. However, a great deal remains to be done, not only with respect to documentation problems under the Export Administration Act but also those involving other agencies and other export and import controls. Proposals to alleviate paperwork problems just do not move fast enough within the government, and many offices and agencies continue to fight change and reduction of forms. While there have been some notable advances in OEC, the Bureau of the Census and some lesser ones in the Agency for International Development (A.I.D.), there is great need for improvement in the Bureau of Customs, the Department of Agriculture and the Department of Commerce.

Because of the deep concern of the Congress, as stated in the Declaration of Policy of the Export Administration Act, "to formulate a unified trade control policy", we believe that a brief survey of some of the paperwork controls imposed on the export as well as import trade of the United States will serve to clarify

the problems involved and highlight obstacles which must be eliminated if the Congressional objective is to be achieved.

First, there is a serious lack of centralization of control of documents by the U.S. government. Based on U.S. laws, various U.S. Government Agencies have been given authority to control the export and import of designated commodities. The Atomic Energy Commission controls radioactive and fissionable materials and certain equipment pertaining to these commodities. The Office of Munition Control, the Department of State, governs the export of arms, ammunition and implements of war, and also the import of most of these commodities. The Department of Treasury controls the import of certain types of arms and ammunition. The Office of Export Control, Department of Commerce, controls export of all commodities—technical data, and materials—which have not been specifically delegated to any other U.S. Agency by a U.S. law. Because of the very wide range of products manufactured by and made available for export by American companies it is necessary for them to understand and comply with the Regulations of all U.S. Agencies, and to assist numerous other companies and persons involved to comply.

Second, U.S. Regulations are unbelievably complex. The Regulations of each U.S. Agency are complicated as well as very lengthy. Intensive application, hard work and experience in negotiating with the U.S. Agencies, have enabled some companies to develop considerable knowledge of the U.S. Regulations and the ability to effectively comply with the Regulations.

However, evidence shows that many exporters have not been able to develop even an understanding of the Regulations. In addition, the length and complexity of the Regulations make the task of communicating the U.S. requirements to other persons and companies very difficult. For example, in the course of complying with the Regulations, it is essential that manufacturers interpret and communicate the requirements of the applicable U.S. Agency to their own personnel who are responsible for exports and thus for compliance with U.S. Regulations. It is also necessary for them, in order to satisfy a customer's order, to communicate the Regulations to forwarding agents to enable them to apply for appropriate licenses and to otherwise comply with the U.S. Regulations.

In addition, it is necessary for them to communicate with a large number of customers overseas. Accordingly it is extremely difficult in many instances to communicate effectively, to such firms and persons, the requirements of the various U.S. Agencies. The complexity and the variety of the U.S. requirements make effective communications difficult and make prompt compliance by such parties difficult and subject to considerable delay. The complexity of U.S. Regulations in general, plus the large number of official forms required by U.S. Agencies, make prompt compliance with the Regulations difficult, and, in many instances, create delays in import and export transactions, which do not improve our nation's position in the world trade.

Third, the sheer number of U.S. forms constitutes a serious problem in itself. At times, they seem almost as numberless as the sands of the seashore. To illustrate, there is attached a compilation of *some* of the forms (total 37) required by U.S. Agencies for Export Control. The number and variety of the forms give an indication of the difficulty inherent in administering the present system. For example, the U.S. Department of Commerce Regulations require the use of more than 30 separate forms, many of which are used on a frequent basis. In addition to the U.S. forms frequently used, companies devise and use many more internal forms to enable their personnel to furnish the information required by the U.S. form. In addition to the forms, it is necessary for them to issue a large number of memoranda and letters to advise their personnel of the U.S. requirements, revisions in Regulations, etc.

Fourth, compliance is difficult. Our NCITD members' experience shows that the Regulations of the four U.S. Agencies are complex to the degree that clear, effective compliance by personnel in general is extremely difficult. Our recommendation is that all four U.S. Agencies should revise and clarify their Regulations to enable U.S. companies interested in world trade to readily understand and effectively comply with the Regulations. The experience of our member companies for a number of years has been that forwarding agents in the U.S.A. can commit technical violations and irregularities because they have misinterpreted the regulations or found the Regulations beyond their ability to understand. Many companies found it absolutely essential to spend a considerable portion of their time and effort to interpret and communicate the U.S. Regulations to forwarding agents and other parties in the U.S.A. and overseas to enable them

to comply with the U.S. Regulations as well as to satisfy the customer's requirements for U.S. origin commodities.

Consistent with the recommendations in the NCITD-DOT Research Study most closely involving Government (set forth above), it is our considered opinion that a drastic revision of all U.S. export and import Regulations is required if firms in the United States are to effectively increase their total exports. More simple Regulations would undoubtedly encourage other U.S.A. companies to become active in overseas business.

Each U.S. Agency should streamline its current, detailed procedures by adopting a new system of review and approval. Each U.S. Agency could use the existing worldwide facilities already available to the U.S. Government to investigate overseas customers and to investigate end uses of U.S. origin commodities. Such a program, if effectively and timely administered by the U.S. Government, could eliminate a vast number of paper forms; eliminate the current confusion and inability of customers to complete the forms; eliminate the need for customers to investigate, before resale of the commodities, whether their proposed customer is listed on any U.S. list of "prohibited parties denied access to U.S. origin commodities"; eliminate delay in supplying commodities to overseas customers; enable U.S.A. firms to reduce their administrative expenses in complying with current U.S. Regulations, and enable U.S.A. firms to more effectively compete in world trade.

The resulting increased exports would effectively support the U.S. Government in its Policy to achieve a favorable trade balance, with the highly desired result of eliminating the current balance of payments problem. In this respect, compare the effort of Japan for example, with the effort of the United States. The Japanese world trade effort is an effectively integrated process from the smallest firm up to and including the Prime Minister and his government. Their approach enables Japan to furnish commodities on extremely favorable terms to practically every market in the world. The U.S.A. could achieve the same results if the U.S. Government made a similar effort to remove the present barriers to exporters, one of the chief ones of which is the paperwork and related procedures barrier, and actively assisted and encouraged the exporters in their efforts to sell competitively any place in the world.

The time for dramatic action along these lines is particularly ripe in view of the recent lowering of barriers to increased East-West trade to which I have previously adverted. On February 10, 1972, the Office of Export Control (OEC) of the U.S. Department of Commerce announced the extension to Country Groups Q (Rumania), W (Poland), and Y (USSR and Communist-controlled countries of Eastern Europe and Outer Mongolia), of the established alternate procedure for reporting exports, under which qualified exporters may be authorized to file at the end of each month typewritten or handwritten, Form 2525-M, Shipper's Summary Export Declaration, or computer tapes, punched cards, etc., in lieu of individual Declarations.

In addition, OEC announced that for export control purposes, the People's Republic of China has been transferred from Country Group Z (North Korea, North Vietnam and Cuba) to Country Group Y, effective February 15, 1972. As a result, the lesser controls applicable to the USSR and other Group Y countries are now applicable to the People's Republic of China as is the monthly reporting procedure.

Regarding extension of the Act, if approved, NCTID takes the position that greater efficiency in the handling of export trade could be accomplished and the program for eliminating documents and simplifying paperwork procedures could be accelerated if two basic principles were observed. These are: (1) a formal program of discussion between the controlling government agencies and representatives of the commercial world before any changes are made in export control policy or procedures, and (2), in an effort to accomplish a reduction in the list of commodities subject to validated license control, those commodities generally accepted as "A" items in the present Commodity Control List, known in other parts of the world as the COCOM List, should be used as the guideline, together with such other commodities as may be specifically and individually justified.

As I previously indicated, the enforcement provisions of Section 7(d) of the Act may have served as a psychological brake on the proliferation of paperwork under the Act. Within the last few weeks NCTID has had consultations with OEC and Census regarding further procedures through which control responsibilities could be discharged while at the same time minimizing paperwork and proce-

dures. Even with this increased cooperation and dedication to reduced reporting, we recommend that Section 7(d) be rewritten and tightened up.

We also recommend that any action taken by Congress take note of the Recommendations set forth in the NCITD-DOT Research Study, "Paperwork or Profits? in International Trade", particularly those eleven Recommendations with which the Government is most closely involved and that the Committee do all in its power to assist in their implementation. NCITD and the Office of Facilitation of DOT are working as closely as possible on the implementation of these Recommendations as they did on the development and preparation of the Research Study, and I am convinced that this joint activity will ultimately bear valuable fruit. But I believe that support and encouragement from the Congress and particularly from the House Committee on Banking and Currency, brought to bear on the Government bodies involved, will stimulate and impel them to more vigorous action in the area of documentation reform.

Consider, for example, Recommendations 16(b) and 17 which involve the Bureau of Customs. NCITD has repeatedly tried to convince the Bureau of Customs that the methods for payment of Drawback and the methods of payment for import duties are completely outmoded and should be brought up to date. The NCITD proposal to provide for payment of drawback to certified recipients on a current basis was formally submitted to the Bureau of Customs on November 6, 1970, after several months of earlier discussions, and despite expressions of interest and a desultory exchange of correspondence since that date, little or no action has been taken by the Bureau to implement the proposal. Similarly, in the case of the proposal to provide that Customs adopt commercially acceptable methods of payment for import duties, discussions on which were inaugurated prior to June 30, 1970, the matter has just dragged along. To be frank, the lethargy appears to stem from the feeling that it is wrong to change practices that have been the norm from time immemorial and that they may be real or imagined legal obstacles to the progressive steps recommended by NCITD.

The United States business community which is concerned with export trade and which wants to stimulate and encourage the revitalization and expansion of that trade, for small and large companies alike, is desperately trying to achieve these goals. Indeed, it is for these very reasons that NCITD was formed. We therefore urge that your Committee instruct the Bureau of Customs and all other Government agencies involved in international trade documentation and procedures to undertake immediate and vigorous action to implement the joint NCITD-DOT Recommendations in the interest of removing obstacles to this Nation's foreign trade. We are certain that such an admonition, linked to the consideration of the possible extension of the "Export Administration Act" would be of immeasurable assistance in achieving the expressed goals of the Congress.

NCITD very much appreciates the opportunity to present this statement to the Subcommittee on International Trade of the House Banking and Currency Committee and would be pleased to meet with members of the Subcommittee and their personal staffs or the staff of the Committee to discuss these matters further, should that be so desired.

## SOME OF THE FORMS REQUIRED BY U.S. AGENCIES

U.S. agency	Form No.	Title
<b>I. Department of State:</b>		
(A) Office of Munitions Control.....	DPS-5.....	Application for license to export unclassified arms, ammunition, implements, of war, and related unclassified technical data.
Do.....	DSP-61.....	Application for intranet or temporary import license for unclassified arms, ammunition, and implements of war.
Do.....	DSP-73.....	Application for license for temporary export of unclassified articles on the U.S. munitions list.
Do.....	DSP-85.....	Application for license to export classified arms, ammunition, implements of war, and related classified technical data.
Do.....	DSP-38.....	Application for license to import arms, ammunition, and implements of war.
See (B) Agency for International Development.		
<b>II. Department of Commerce:</b>		
Do.....	FC-420.....	Application processing card.
Do.....	FC-419.....	Application for export license.
Do.....	1A-763.....	Request for and notice of amendment action.
Do.....	7525-V.....	Shipper's export declaration.
Do.....	FC-842.....	Single transaction statement by consignee and purchaser.
Do.....	FC-843.....	Multiple transaction statement by consignee and purchaser.
Do.....	FC-43.....	Statement by foreign importer of aircraft or vessel repair parts.
Do.....	FC-143.....	Request for authorization to distribute U.S.-origin commodities stocked abroad to approved customers.
Do.....	FC-243.....	Multiple transactions statement by customer of distributor of U.S. commodities stocked abroad.
Do.....	1A-743-A.....	Request for, and advice on, status of pending application, amendment, or reexport request.
Do.....	FC-1143.....	Distribution license consignee statement.
Do.....	FC-826/IRS 4522, FC-827.	U.S. international import certificate and supporting form international import certificate cross-reference card.
Do.....	FC-908.....	U.S. delivery verification certificate.
Do.....	1A-543.....	Service supply (SL) license statement by U.S. exporter.
Do.....	1A-544.....	Service supply (SL) statement by service facility or manufacturer.
Do.....	1A-1145.....	Request to dispose of commodities or technical data previously exported.
Do.....	BDSAF-138.....	Request for priorities assistance.
Other U.S. Department of Commerce forms, which we do not use, are as follows:		
	FC-957.....	Application for and notice of extension of project license.
	FC-988.....	Statement by ultimate consignee in support of project license application.
	1T-915.....	Notice of retained samples—U.S. Customs Service.
	1A-863.....	Notification of delivery verification requirement.
	1A-1014.....	U.S. exporter's report of request received for information, certification, or other action indicating a restrictive trade practice or boycott against a foreign country.
	FC-557.....	Export clearance continuation sheet.
	1A-1094.....	Report of exports.
<b>III. Atomic Energy Commission:</b>		
Do.....	AEC-7.....	Application for license to export byproduct, source, or special nuclear material.
Do.....	AEC-2.....	Application for source material license (to receive, possess, use, transfer, deliver, or import to United States).
<b>IV. Department of Treasury:</b>		
Do.....	6 (firearms).....	Application and permit for importation of firearms ammunition, and implements of war.
Do.....	6A (firearms).....	Release and receipt of imported firearms, ammunition, and implements of war.
<b>U.S. Department of State:</b>		
<b>(B) Agency for International Development:</b>		
Do.....	11.....	Application for approval of commodity eligibility.
Do.....	282.....	Shipper's certificate and agreement with the Agency for International Development.
Do.....	283.....	Certificate and agreement with the Agency for International Development concerning commission and service payments associated with commodity sales financed with foreign assistance funds.
Do.....	18-24.....	Development loan fund supplier's certificate.

UNITED ELECTRICAL, RADIO AND MACHINE WORKERS OF AMERICA,  
*New York, N.Y., June 22, 1972.*

Hon. THOMAS L. ASHLEY,  
*Chairman, Subcommittee on International Trade, House Office Building, Wash-  
 ington, D.C.*

DEAR CHAIRMAN ASHLEY: It is now one year since a delegation representing Vermont machine tool workers for whom this union is the collective bargaining representative went to Washington to appeal for the easing of trade restrictions with the Soviet Union and other Eastern European countries.

Vermont, as you undoubtedly know, prides itself as being the cradle of this country's machine tool industry. In the past several years the workers in the various plants there have been severely hurt by unemployment which has been as high as 50 percent.

As recently as the first week of June half of the 1800 machine tool workers in our Springfield, Vt. local union were reported as being unemployed. A very substantial number of them have exhausted their normal and extended unemployment insurance.

The group that went to Washington June, 1971 had been advised by their employers that Soviet trade representatives had expressed great interest in buying equipment made by the Vermont manufacturers not only because of the quality of the equipment but because they have in the past had satisfactory business arrangements with the same companies. Representatives of these companies have been to Moscow repeatedly to seek orders and have presented estimates for machinery.

These same companies have told our union officers that during the years in which the Soviet Union has been closed off from buying machinery here, it has been able to get the same equipment in Western Europe and Japan. In some instances, the management spokesmen informed us, the equipment bought in other countries was made by European subsidiaries of these same American firms or under licenses granted by these or other U.S. firms.

In other words, while at least some of the profit for Soviet trade was returned to American industry none of the jobs were made available for American workers.

The machine tool workers whom we represent find it difficult to accept such a short-sighted policy which not only deprives them of work but if permitted to continue will lead to the permanent loss of some of the most highly skilled craftsmen this country has.

In our meetings with officials of the Commerce and State Departments a year ago we were led to believe that there would be early action to permit expansion of trade with the Soviet Union and its associated countries. This, especially because of the unfavorable trade balance.

At both departments we were warned then that there was strong opposition from the Pentagon to easing the trade restrictions. This was verified when our group met with officials at the Pentagon.

In January of this year, Secretary of Commerce Peterson said at a meeting of the Conference Board in New York City that certain "political matters" would have to be cleared up before extensive trade could be developed. This was after his predecessor in that office, Maurice Stans, had visited Moscow in December and returned to report that there was the potential for huge machine tool orders for American industry.

Now, President Nixon has been to Moscow and returned to report that despite the apparent agreement on a number of political issues, agreement for expansion of trade is still a matter for further discussion.

Meanwhile, the machine tool workers go deeper into debt and deeper into suffering. While some orders have come to American industry for the huge River truck project, the major breakthrough has not been made.

American workers are being hit, on the one hand, by the export of jobs by the big multi-national corporations which have been transferring operations overseas; and on the other hand, by the failure of the Administration to take advantage of an admittedly huge market for American equipment.

It is evident that congressional intervention is urgent to bring about a change in this lack of concern for the welfare of a very important section of America's working people.

Sincerely yours,

ALBERT J. FITZGERALD,  
*General President.*

STATEMENT OF HERSCHEL CUTLER, EXECUTIVE DIRECTOR, INSTITUTE OF SCRAP IRON AND STEEL, INC.

My name is Herschel Cutler. I am Executive Director of the Institute of Scrap Iron and Steel, Inc., the national trade association representing 1300 member firms directly and indirectly involved in the processing and brokering of iron and steel scrap and related commodities. My office is located at 1729 H St., NW., Washington, D.C. 20006.

Prior to assuming my current position in January, 1972, I was Associate Professor of Transportation and Business Administration, The American University, Washington, D.C., and President, Distribution Economics Educators, Inc., a firm of independent transportation consultants. I was Assistant to the Economist and Associate Economist of the Association of American Railroads prior to my academic experience. I was awarded a Ph. D. in Economics from the Maxwell School at Syracuse University and, at present, remain an adjunct Professor at The American University.

The Institute understands and supports the concept of export controls available on a contingency basis "to the extent necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand." (P.L. 91-184, Sec. 3(2)(A)). The Institute understands and supports the theory and concept of the Export Administration Act of 1969 and, thus, supports its continuation.

However, there are two areas of extreme concern to this industry that compel comment which in no way modifies our support to extend the Act. In fact, these comments hint at a means to more effectively implement the declaration of policy contained in the original Act. In that spirit, the Institute offers its opinion on (1) the matter of improper potential use of export controls to regulate domestic price and (2) the need for viable standards to establish when export controls should be instituted in the public interest.

Since the purpose of the Export Administration Act is, obviously, to insure a viable *domestic* economy as well as a healthy *export* industry, the key concept must be supply availability, not price control. The clear objective of the Act is to insure availability of materials, as is evident in the findings of Congress listed in Section 2 P.L. 91-184.

The concept of an "excessive drain of scarce materials" is obviously supply oriented and price does not properly enter that analysis except for one specific condition.

Price is only of interest in the matter of the "serious inflationary impact." It is important to note, however, that a "serious inflationary impact" is not portrayed by short run price swings but rather is characterized only by long run movements or trends of escalating prices. The fact that a price for a given product might at any moment be higher than desired by domestic consumers does not, by any stretch of the imagination, pose a "serious inflationary" problem especially if such price fluctuations are inherent to a freely traded, marketable commodity. It would obviously be a misuse of the export control concept to force a domestic price ceiling on a commodity otherwise freely traded for the purpose of reducing domestic costs, when the supply of that commodity is more than sufficient to meet both the domestic and the foreign demands then in existence.

With that as background, the second problem, namely the need for effective criteria to establish whether export controls are required, comes to the fore. The Act is silent about criteria or standards available or necessary to establish when "an excessive drain" is occurring or when a "serious inflationary impact" is in existence.

The absence of such standards provides solace for those desirous of controls in the interest of price limitations while the absence of such criteria makes difficult the position of sellers in that they have no guidance as to elements of proof that would demonstrate the lack of justification for such controls. This does not mean that precise criteria should be legislated because such is not only of questionable value but would most likely be more of a hindrance than a help. Rather, what is suggested is the preparation of descriptive criteria recognizing the role of supply availability at any given moment. Such criteria require study of all parameters of supply and this Institute is about to undertake such an effort. The results of the study will be made available as soon after completion as possible.

It is the policy of this Government to stimulate a sound domestic as well as foreign commerce and the conceptual framework of the Export Administration Act was designed to codify that premise. This Institute recognizes that at certain times and under specific conditions, short term export controls might be required in the public interest and thus we support the extension of the Act through 1975. The main thrust of our statement, however, is that under no conditions should the policy of this Act be broadened to enhance price control under the guise of supply shortages. The way to preclude such an erroneous application would be to develop general criteria guidelines for the declaration of an emergency condition requiring the limited introduction of export controls in the public interest.

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POSITION STATEMENT OF THE AMERICAN IRON AND STEEL INSTITUTE ON EXTENSION  
OF THE EXPORT ADMINISTRATION ACT OF 1969

Mr. Chairman and members of the House Committee on Banking and Currency, Subcommittee on International Trade, this statement is submitted on behalf of the American Iron and Steel Institute, a nonprofit trade association with 66 member companies in the United States. These companies account for more than 95% of this country's steel production, and employ well over 500,000 hourly and salaried workers. We welcome the opportunity to present our views on extending the Export Administration Act of 1969 beyond its current expiration date of August 1, 1972.

Steel producers in the United States favor the enactment of legislation which will continue existing authority for the regulation of exports of materials from this country. We are particularly concerned that such legislation provides for safeguarding all of our national interests, including the welfare of the domestic economy.

In this connection we strongly support the Congressional Declaration of Policy contained in Section 3, Paragraph (2) of the Export Administration Act of 1969, part of which reads as follows:

"It is the policy of the United States to use export controls (A) to the extent necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand. . . ."

Domestic producers consume literally scores of materials in the manufacture of iron and steel products. In the case of many of these materials the United States is a negative producing nation, for example nickel, chrome, manganese, zinc, tungsten and fluorspar, to name a few. We as a nation need the necessary control mechanisms to limit the exportation of these types of materials—whether in primary or secondary form or as they are contained in ferrous and non-ferrous scrap.

Our national interests would be poorly served if we as a country permitted the unlimited export of materials which are in deficit domestic supply. The same statement may apply to the unlimited exportation of materials whose past production in the United States has been in excess of past apparent requirements. For example, is it in the best national interest to expand foreign markets for bituminous coal when most studies indicate that the U.S. must reply heavily on coal to meet the growth in energy demand over the next 20 to 30 years?

However, our purpose is not to philosophize on export policy in general, but rather to make a specific recommendation toward implementing what the steel industry believes was the intent of Congress in enacting Public Law 91-84, "The Export Administration Act of 1969."

As noted previously, Section 3, Paragraph (2) of the Act says in part:

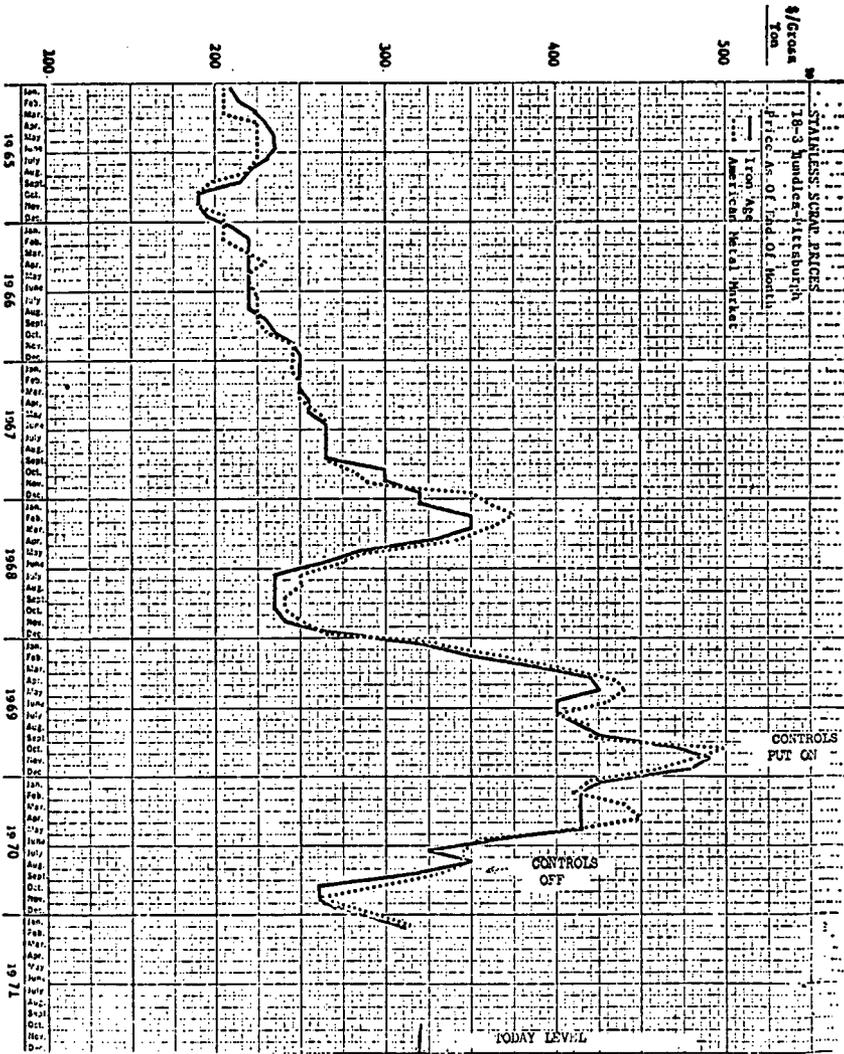
"It is the policy of the United States to use export controls (A) to the extent necessary to protect the domestic economy from the excessive drain of scarce materials and to reduce the serious inflationary impact of abnormal foreign demand. . . ."

Section 4(a) (1) of the Act authorizes the Secretary of Commerce to exercise such controls under this Act as he determines are necessary to facilitate and effectuate the fullest implementation of the policy set forth in this Act with a view to promoting trade with all nations with which the United States is engaged in trade.

Whereas, the intent of Congress seems clear, many interpretations have arisen regarding the degree of authority given to the Secretary of Commerce to implement the intent. Past experience of the steel industry in seeking limitations on exports of critical steelmaking materials under the 1969 Act indicates that the Department of Commerce believes it can take no action until after abnormally high exports have occurred over a substantial period of time, and it has a full measure of statistical evidence that the exports in question are causing a short-supply and inflationary conditions in the domestic economy.

A procedure so inflexible as this has caused serious problems and hardships to the domestic industry being injured, and in fact may negate the protection which the law is supposed to provide. The time period between placement of the export order, actual exportation of the material, gathering of export statistics, gathering of domestic statistics, analysis of the degree of injury caused by the export, and the decision to establish or not establish controls, may extend over many quarters or even years. The domestic user of the material suffers serious damage, irrespective of whether or not controls are finally put into effect.

Two relatively recent case histories will help to illustrate the inadequacy of the present procedure for establishing controls. The first one involves the exportation of stainless steel scrap, an important source of chrome and nickel in the manufacture of stainless steel. Exports rose from 45,000 net tons in 1966 to 138,000 net tons in 1967 and 130,000 net tons in 1968. The abnormal foreign demand reduced dealer inventories in this country to minimal levels and caused the domestic price of stainless steel scrap to rise from \$220 a ton at the end of 1966 to \$325 a ton in late 1967, and over \$500 a ton by mid-1969. While the requirement that exports of nickel-bearing scrap be licensed went into effect on July 10, 1967, short-supply export controls were not established until September 9, 1969 following the shutdown of nickel mines in Canada due to labor difficulties there. This is shown in the appended chart.



The impact of abnormal foreign demand for stainless steel scrap in 1969 and 6 months 1970 resulted in inflation of the domestic scrap price level by \$250 a ton. When it is recognized that consumption of purchased stainless steel scrap by the domestic stainless steel industry averaged over 30,000 tons a month during this period, the added cost to the industry has been estimated at well over \$100 million.

The second example relates to exports of ferrous scrap from an annual average of 6.7 million net tons in the 1966-1968 period to 9.1 million net tons in 1969 and 10.3 million net tons in 1970. The abnormal foreign demand in this period brought about a short-supply condition in this country which raised the average price of scrap purchased by the steel industry from \$27.68 in January, 1969 to \$37.36 in January, 1970, and to an average of \$41.19 a gross ton for the year 1970. The inflation in domestic ferrous scrap prices during the two years of high exports increased steelmaking costs an additional \$250 million, excluding unknown more millions of dollars spent in substituting lower grades of scrap for higher grades in short supply. The added \$350 million in purchased scrap cost—including the \$100 million rise in stainless scrap costs—was equal to 25 percent of steel industry profits in 1969 and 1970. The impact was, of course, even more severe upon electric furnace steel producers who were virtually 100 percent dependent upon scrap as their source of raw material.

Failure of the Department of Commerce to institute controls which would have limited exports of iron and steel scrap to more normal levels in 1969 and 1970 was largely attributed by the agency to lack of information on the total available supply of scrap in the United States. It is our understanding that Commerce is currently attempting to develop methods for collecting such data.

The steel industry believes that preliminary actions can be taken to limit abnormal high exports which will have a disruptive effect on the domestic economy, prior to the final availability of hard, statistical evidence. For example, the Japan Ministry of Trade, the European Economic Community, and others generally announce their intentions of increasing their purchases of materials from this country. Trade sources in this country often make similar announcements. The probable impact of the heavier foreign requirements on the domestic demand-supply situation can therefore be measured well in advance.

American Iron and Steel Institute therefore recommends that Section 4(1) (a) of the current legislation be expanded to specifically authorize the Secretary of Commerce to take early prospective action to regulate exports of a given material in those instances where there is ample evidence to indicate.

(1) that an abnormal foreign demand for the material already exists or will soon occur, and

(2) that such foreign demand will bring about a level of U.S. exports which will be sufficiently high to cause an excessive drain of scarce materials from the U.S. economy or produce a serious inflationary impact.

Thank you for the opportunity of submitting this statement.

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NATIONAL MACHINE TOOL BUILDERS ASSOCIATION,  
McLean, Va., June 9, 1972.

HON. THOMAS L. ASHLEY,  
Chairman, Subcommittee on International Trade, Committee on Banking and  
Currency, U.S. House of Representatives, Washington, D.C.

DEAR CONGRESSMAN ASHLEY: The National Machine Tool Builders' Association appreciates your invitation to present the industry's views concerning United States export control policy and the proposed extension of the Export Administration Act of 1969. We represent over 300 American machine tool companies which account for approximately 90 percent of United States machine tool production and are located in 26 states.

On March 14, 1972, Mr. Nicholas A. Leyds, Chairman of NMTBA's International Trade Committee, testified at hearings by the Senate Subcommittee on International Finance on extending the 1969 Act. Mr. Leyd's testimony presented a comprehensive statement of NMTBA's position on U.S. export control policy. I am enclosing a copy for your information and, if appropriate, for inclusion in your Subcommittee's record of hearings (Attachment A).

NMTBA's experience with U.S. export controls during the last several years convinces us that an immediate and complete overhaul of the system is appropriate. Such action is particularly timely now in view of the significant new

trading opportunities that are now opening up in the Soviet Union, throughout the Eastern European countries and in the People's Republic of China. Our overseas competitors are moving in on these lucrative markets. To remove a serious impediment to U.S. companies sharing in these important new areas of possible export expansion, U.S. export controls can and should be rapidly scaled down to a level consistent with present-day world political and military realities.

Because removal of these self-imposed barriers to increased export trade is so important to our industry, NMTBA has urged the Congress to enact amendments to the Export Administration Act or otherwise direct the responsible U.S. government agencies promptly to:

1. Remove all unilateral export controls on those machine tools and accessories that do not have significant military applications or that are available from non-U.S. sources not subject to comparable export restrictions.

2. Review and significantly reduce the multilateral COCOM embargo list, to prevent the COCOM list from continuing to penalize unnecessarily export opportunities of United States companies.

3. Establish joint government-industry committees to analyze the relevant technical data and recommend whether to impose or continue particular unilateral or multilateral export controls on machine tools.

4. Provide effective financial security to United States companies against the risks of loss resulting from cancellation or non-renewal of export licenses.

5. Extend the validity period of export licenses to include the full anticipated period for completion of an export transaction and grant authority to export spare and replacement parts throughout the normal working life of a machine tool authorized for export.

6. Continue authority to regulate exports under the Export Administration Act only until June 30, 1973 so that Congress may review early next year progress in implementing mandated changes in U.S. export control policy.

Since NMTBA's March 14 testimony before the Senate, certain questions have been raised about our proposals for Congressional action. We are pleased to have this opportunity to comment on the issues raised and, in some cases, to expand upon our basic recommendations.

1. *The Need to Eliminate Most Unilateral Controls on Machine Tools.*—Over two and a half years have passed since Congress attempted to expand the opportunities for East-West trade by enacting the Export Administration Act of 1969, a less restrictive version of the 1949 Export Control Act. In spite of the 1969 legislation, however, unilateral export controls remain on virtually all U.S. machine tools not subject to the COCOM embargo. Because there is now a significant potential export market in the U.S.S.R., Eastern Europe and China for machinery and equipment subject to U.S. unilateral controls, and because our Western European and Japanese competitors are able to export such machinery and equipment without the impediment of obtaining licenses, we propose removing all U.S. unilateral controls on machine tools that do not have significant and demonstrable military applications or that are freely available from non-U.S. sources.

We urge that decontrol begin with those machines for which the greatest export market exists. Our industry's experience under the 1969 Act has led NMTBA to recommend that Congress set a specific date—we urge a date no later than December 31, 1972—for the appropriate government agencies to complete their review of unilateral export controls and specifically to justify any such controls retained after that date.

We are aware that the process of decontrol in some cases involves the collection of information that can be obtained only from the industry involved. The machine tool industry has not been derelict in this regard.

Early in 1971 NMTBA submitted four comprehensive reports to the Commerce Department supporting the removal of unilateral controls on machine tools in the so-called "basket category." NMTBA has provided four more such reports in 1972. NMTBA has offered and continues to offer to provide any assistance necessary to facilitate understanding or use of the reports, which were prepared at the Department's request. These reports clearly identify subgroups of basket category equipment that do not have significant military applications, or that are freely available from non-U.S. sources, and that should accordingly no longer be subject to unilateral export controls.

Late in April of this year, in the first machine tool decontrol action to be taken under the 1969 Act, the Office of Export Control announced the removal

of unilateral export controls on approximately 11 types of machine tools. Unfortunately, however, despite the Office of Export Control's stated position that decontrol action should concentrate on non-strategic commodities that are "of potential importance in East-West trade," the machine tools decontrolled have little export potential. The machines are standard equipment and in some cases are no longer manufactured in the United States. The decontrolled equipment does not include any of the many non-strategic machines of interest to our potential Eastern European and Chinese customers.

NMTBA recognizes that the absence so far of any useful or significant decontrol of machine tools does not necessarily reflect lack of effort within the Office of Export Control. OEC personnel have apparently devoted considerable time to analyzing our recommendations for decontrol and explaining them to officials from other agencies participating in the intergovernmental decontrol review. It appears, however, that one reason for the slow pace of decontrol has been the lack of a mechanism to provide the interested government agencies with complete and accurate information concerning the equipment that our industry and its overseas competitors produce. To meet this need, we recommend, as discussed below, the immediate creation of joint government-industry technical advisory committees.

2. *The Importance of Prompt Revision of the COCOM Embargo List.*—The United States has consistently taken a conservative stance in COCOM by opposing or delaying deletions from or exceptions to the COCOM list. This policy has often caused U.S. manufacturers to lose the benefits of their single greatest advantage over Western European and Japanese competitors, namely, U.S. industry's technological superiority and ability to produce advanced equipment ahead of its overseas competitors. By the time the COCOM embargo on a commodity is removed, our competitors have the capability of producing it and are already aggressively seeking orders in Eastern Europe and China. Accordingly, NMTBA urges that the United States take the initiative in promptly urging the COCOM countries to remove from the embargo list those machine tools that are not of direct strategic significance to the United States and its allies.

We also urge, however, that equipment not be taken off the COCOM list only to be made subject to unwarranted unilateral controls. The net effect of such action would be to create even greater competitive disadvantages for U.S. exporters since they would then face a licensing requirement no longer imposed on their foreign competitors. We believe that if our COCOM allies will not agree to impose or continue multilateral export controls on a particular machine tool, the United States should generally not impose any unilateral controls on such equipment.

Another aspect of U.S. licensing policy for COCOM commodities requires re-examination. The United States currently imposes a unilateral control on exports of COCOM commodities to purchasers within other COCOM countries. Thus, a U.S. machine tool builder must obtain a validated license to export COCOM equipment to France, a COCOM member, even though a competitor in Italy, also a COCOM country, needs no such license to export the same equipment to France. While in most cases, U.S. export licenses are ultimately granted to ship COCOM items to purchasers in other COCOM countries, the extra time and expense spent in obtaining such license is competitively disadvantageous to U.S. sellers, and otherwise unwarranted. NMTBA recommends that such unilateral controls on COCOM commodities should be eliminated immediately.

3. *Differences Among COCOM Countries in Administration of the COCOM Embargo.*—U.S. machine tool builders have long believed that the COCOM embargo is being interpreted and administered differently by other COCOM countries, to the advantage of their nationals and to the disadvantage of U.S. industries. These variations in practice reflect underlying differences in attitude toward the COCOM embargo between U.S. export control authorities and those in other COCOM countries. For example, the governments of our COCOM allies take the initiative in encouraging their domestic industries to seek orders for COCOM equipment that may be eligible for exceptions to the embargo. These governments also actively support the granting of such exceptions by COCOM. In contrast, the responsible U.S. export control authorities appear to limit themselves to providing U.S. exporters with carefully phrased responses to specific inquiries about the embargo. They seldom offer to seek a COCOM exception for a U.S. exporter and frequently discourage requests by manufacturers for such exceptions.

The difference in British and U.S. practice on publicizing which COCOM commodities are eligible for exceptions to the embargo illustrates this basic dif-

ference in attitudes and approach. Eastern European purchasers have expressed great interest in importing non-strategic numerically controlled machine tools, many of which are still subject to the COCOM embargo. The British Board of Trade provides detailed guidelines to British machine tool builders describing which numerically controlled machine tools have the "best prospects" for receiving COCOM exceptions. (Relevant pages of the British Board of Trade Journal are enclosed as Attachment B.) In contrast, the corresponding Department of Commerce's Export Control Regulations contain no such general guidelines on prospective COCOM exceptions. (Attachment C.) Unlike their British competitors, U.S. machine tool builders can apparently obtain guidance on likely COCOM exceptions only by consulting with U.S. government officials on a case-by-case basis.

4. *The Need For Joint Government-Industry Technical Advisory Committees.*— to assist the government with its decontrol review and future export control policy, we propose that Congress mandate the establishment of joint government-industry technical advisory committees, and specify that these committees meet at regular intervals. We believe that such joint committees would provide a mechanism for bringing together the views of both industry experts and interested government agencies. Congress should require that these committees be asked to review data concerning whether to impose or to continue unilateral or multilateral export controls on U.S. products. The proposed committees would provide the government with current information on such matters as the availability of commodities from sources not subject to United States or comparable export restrictions, the state-of-the-art in development of such commodities by such sources and the actual use of such commodities in civilian and military applications and production. By a full and frank exchange of ideas about such data in these committees, more expeditious decontrol of non-strategic items, particularly in the various machine tool categories, should be possible than has occurred to date.

In testifying before your Subcommittee on May 30, the Director of the Office of Export Control indicated that his office has identified those product groups for which such joint committees would be useful. Because there is now an urgent need for the assistance of these committees, we recommend their immediate appointment and involvement in future U.S. export control policy. The United States is currently participating in Paris in a major review of the COCOM list. The joint committees are needed to provide the expertise to assure that this COCOM review results in limiting the COCOM list to commodities of direct strategic significance to the United States and its allies. The joint committees would also have an important role in recommending which commodities should be removed from the COCOM list and not be subjected to U.S. unilateral controls. Prompt establishment of these committees would assure the necessary coordination between COCOM decontrol and concurrent unilateral decontrol.

5. *Extension of the Export Administration Act of 1969 to June 30, 1973.*—We support Section 101 of your bill, H.R. 8180, that would extend the 1969 Act only until June 30, 1973. We believe that a major purpose of the 1969 Act—improving East-West trade opportunities by reducing U.S. export controls—has not been adequately fulfilled. Congressional scrutiny will be essential to assure that urgently needed changes in U.S. export control policy are carried out in the near future by Executive action. We also urge that this Subcommittee hold hearings shortly after the new Congress is convened next year to assure that the 1969 Act (with any amendments Congress may adopt) is being properly implemented.

We are pleased to note that President Nixon told the Congress after his recent trip to the U.S.S.R. that the United States expects that the final terms of a trade agreement with the Soviet Union will be settled later this year. We support the President's efforts to increase East-West trade opportunities, and welcome establishment of joint commercial commissions with the Soviet Union and Poland. We earnestly believe, however, that these other steps toward promoting such trade do not justify any delay in U.S. reductions of unilateral and multilateral export controls. In view of the need for such decontrol action at this time, we urge the Congress not to postpone action on our industry's recommendations.

Very truly yours,

JAMES A. GRAY,  
*Executive Vice President.*

## ATTACHMENT "A"

## STATEMENT OF NICOLAAS A. LEYDS ON BEHALF OF THE NATIONAL MACHINE TOOL BUILDERS ASSOCIATION

My name is Nicolaas A. Leyds. I am President of Bryant Grinder Corporation in Springfield, Vermont, which is a unit of Ex-Cell-O Corporation of Detroit, Michigan.

I am appearing before this Subcommittee on behalf of the National Machine Tool Builders Association (NMTBA) and as Chairman of NMTBA's International Trade Committee. With me is James A. Gray, who is NMTBA's Executive Vice President, and Edward J. Loeffler, who is NMTBA's Technical Director. NMTBA is a trade association representing over 300 American machine tool manufacturing companies. These companies account for approximately 90 percent of United States machine tool production and have manufacturing plants in 26 states.

The machine tool industry has a major and immediate interest in the system of export controls administered under the Export Administration Act of 1969. Our experience with these controls over the past several years has convinced us that a complete overhaul of the system is required to avoid continued damage to United States industries, jobs and export receipts. United States export controls can and should be scaled down promptly to a level consistent with United States national security in the light of present-day realities.

In brief, we urge Congress to enact appropriate amendments to the Export Administration Act or take other necessary action to bring about the following results:

(1) Prompt removal of unilateral export controls on those machine tools and accessories that do not have significant military applications or that are readily available from non-U.S. sources. Machine tools for which there is a present, significant export potential should receive priority for decontrol action, such as machines to manufacture non-strategic products, including automobiles, farm equipment and consumer goods.

(2) Re-examination—by government and industry acting together—of the United States position with respect to products on the multilateral COCOM embargo list, to prevent the COCOM list from unnecessarily penalizing export opportunities of United States companies.

(3) Providing effective financial security to United States companies—by the Export-Import Bank or otherwise—for risks relating to the possible cancellation or non-renewal of required export licenses.

## I. THE MACHINE TOOL INDUSTRY AND EXPORT CONTROLS TODAY

Our recommendations are made in the light of today's economic, technological and political realities. These realities are far removed from the conditions that existed in the period after World War II when broad-scale United States and multilateral export controls were first imposed. In 1945, the United States had a vast lead, approaching a monopoly, in both production capacity and technology. The factories of Europe, both East and West, had been destroyed by six years of warfare. Japan had not yet emerged as a major world industrial power.

Today's economic world bears little resemblance to that of the late 1940's. Western Europe and Japan rival the United States in almost every product, from automobiles to highly sophisticated machinery. The Eastern European countries have made great progress. Trade between Eastern and Western Europe flourishes, largely free of governmental restraints.

Nowhere are these global changes since World War II more graphically demonstrated than in the machine tool industry. Machine tools cut and form metal. They are the "master tools" of industry—the machines required to produce all others, the only machines that can literally reproduce themselves. Every industrial nation's economic strength depends on machine tools.

In the period following World War II, under the Marshall Plan and other assistance programs, U.S. companies furnished Western Europe and Japan with the machine tools essential to rebuild their industrial plant and economies. In time, these countries developed their own sophisticated, modern and efficient machine tool industry. During this same period, fostered in part by restrictions on our exports of machine tools, the Soviet Union and Eastern European countries developed their machine tool industries.

According to figures in the *American Machinist*, United States production of machine tools accounted for 31 percent of world output in 1967. By 1971 our output had dropped to below 13 percent of the world total. During 1971 the U.S. machine tool industry dropped for the first time to third place behind West Germany and the U.S.S.R., in the world ranking of value of machine tool equipment produced. Western Europe now produces nearly 50 percent of the world's machine tools. West Germany alone produces 23 percent of the world total.

The United States system of export controls has obviously failed to keep pace with these changing economic and technological realities. This failure has contributed importantly to the decline of the relative importance of this country in world machine tool production and machine tool exports. This failure has made a significant contribution to the present depressed state of our domestic machine tool industry with consequent loss of jobs and income. This failure further reduces the U.S. balance of trade and serves to increase our balance of payments deficit.

The U.S. machine tool industry has supported and will continue to support limitations on the export to any country of machine tools that would afford significant military or strategic advantages not otherwise available and contrary to U.S. national security. However, we oppose trade controls that go beyond that purpose, that hamper the export of non-strategic machine tools to the detriment of the U.S. balance of payments, industrial production and jobs, and that are ineffective because other industrial nations supply the equipment that we cannot.

## II. THE COMPETITIVE DISADVANTAGES CREATED BY MULTILATERAL AND UNILATERAL EXPORT CONTROLS

The export controls imposed under the Export Administration Act may be divided into two categories:

First, certain types of machine tools that the United States, its NATO allies (except Iceland) and Japan have agreed not to furnish to certain countries without prior consultation and agreement through a coordinating committee known as COCOM;

Second, those machine tools that the United States, as a matter of its own national policy, will not permit to be exported to the Soviet Union, Eastern European countries and the People's Republic of China (and in some cases to free world countries), without a validated export license on application by the exporter. Virtually all U.S. machine tools for which there is a significant export demand that do not fall into the first category fall into the second category. Both categories operate to the disadvantage of the U.S. machine tool industry.

(A) *Multilateral Export Controls through the COCOM.*—We believe the United States has consistently taken a conservative stance in COCOM negotiations. We also believe that some COCOM countries interpret and administer the international embargo list far less restrictively than the United States.

In the periodic review of changes in the COCOM list it appears that the United States has been reluctant to approve deletions. If U.S. technology lead times were still measured in years, as they were in the late 1940's and early 1950's, and if all the items we denied to the U.S.S.R. and Eastern Europe were important strategically, this policy might be defensible despite its detrimental effect upon the U.S. machine tool industry. But lead times in many instances are now measured in months, not years. In many cases, new technology relates to product refinements, such as greater production or accuracy, rather than new concepts. As a result, the COCOM controls in large measure put the U.S. machine tool industry at a disadvantage—with the result that a potential market is lost to U.S. machine tool builders.

(B) *Unilateral Export Controls by the United States.*—The United States unilateral controls present even more serious problems. The machine tools subject to these controls include virtually all machines not on the COCOM list. They are, however, available without licenses from our West European and Japanese competitors. No other country controls shipments of these machine tools to the U.S.S.R. or Eastern Europe. Indeed other governments positively encourage such shipments in many cases. Moreover, Western Europe and Japan are competitive in almost all machine tools subject to unilateral U.S. export controls.

In these circumstances unilateral U.S. controls are largely ineffective in denying these machine tools to the U.S.S.R. and Eastern Europe. This Subcommittee reached this same conclusion in 1969. We agree with the statement in your report on the bill which became the Export Administration Act that "for the United

States to attempt to unilaterally control the export of goods which are freely available from other sources is both futile and useless." Unilateral U.S. controls put our industry at a major competitive disadvantage. That disadvantage looms very large in the light of present economic conditions. The United States has just recorded the first trade deficit of this century. We have suffered a staggering balance of payments deficit. Large scale unemployment persists.

The domestic machine tool industry has felt the full impact of these economic conditions. Production and new orders for machine tools have declined sharply over the past five years. By the end of 1971 backlogs had dropped 66 percent below the 1966 level. Profit margins averaged less than two percent of shrunken sales in 1971 and are likely to be even lower this year. Many machine tool companies sustained severe losses in 1971.

Historically exports have constituted an important market for domestic machine tool manufacturers. Even though in 1971 exports accounted for more than 25 percent of domestic production, we must export far more to restore a healthy domestic industry. Our opportunities to increase exports are increasingly limited in Western Europe and Japan with the growth of their own machine tool capacity and the recent slackening of demand in that market. The Soviet Union and Eastern Europe, however, are potentially rich export markets for U.S. machine tools.

The U.S.S.R. and Eastern European agencies responsible for purchasing machine tools recognize the reliability, long life and low maintenance costs of U.S.-built machines based on their experience with U.S. machines dating back to the Lend Lease Program and even the 1920's. Accordingly, our industry is engaged in a major effort to sell machine tools to the U.S.S.R. and Eastern European countries. U.S. machine tool builders have individually approached Soviet and Eastern European machine tool purchasers seeking their business. In addition, NMTBA has recently undertaken several trade missions to provide additional sales opportunities for our industry in these countries. These missions were Industry-Organized-Government-Approved (IOGA).

NMTBA conducted its first machine tool IOGA trade mission to the U.S.S.R. and Hungary last spring. The thirty members of the mission included representatives of fifteen U.S. machine tool companies, staff of NMTBA and an official of the U.S. Department of Commerce. During their stay in Moscow, the U.S. machine tool representatives described their respective companies and products to an assembly which Soviet officials estimated to include over 600 engineers and other interested personnel. Each company's representatives met with officials of Soviet foreign trade organizations interested in particular products lines to discuss the capabilities of specific machines. During these sessions, Soviet officials gave the companies requests for quotations for U.S.-built machine tools that totaled more than \$50 million. The potential business for the industry in the U.S.S.R. may exceed these initial requests for quotations by a factor of, at least, 30. In addition to discussing prospective sales of their equipment, mission members visited the Experimental Scientific and Research Institute of Machine Tools, which is the leading metal cutting machine tool development center in the U.S.S.R., and a number of Soviet facilities which use machine tools.

In Hungary, part of the NMTBA trade mission was welcomed by the Hungarian Chamber of Commerce and spent the bulk of its time with representatives from Technoimpex, which purchases most of the foreign-built machine tools acquired for Hungary. Representatives of U.S. machine tool companies who joined the mission to Hungary received a number of requests for quotations for U.S.-built equipment. The mission members visited the Ikarus Body and Coach Building Works, reputed to be the largest bus manufacturing facility in Europe, and the plant of Csepel Machine Tool, which plans to exhibit equipment in NMTBA's 1972 Machine Tool Show in Chicago.

In September, 1971, NMTBA sponsored a second trade mission to the Soviet Union, in which 20 U.S. machine tool companies participated. Many of the company representatives returned with requests for quotations on specific machine tools. The mission also brought back other requests for quotations for types of equipment not manufactured by companies represented on the mission.

NMTBA has just completed its first trade mission to Poland. I participated in that trade mission and returned at the end of last week. This latest mission included representatives of 11 machine tool companies, who spent ten working days in Poland. During our stay in Poland, we met with officials of Metalexport, the Polish importer of foreign-built machine tools. In Warsaw, we visited the F. S. O. Automobile Factory and the Ursus Tractor Factory. We were also priv-

ileged to visit the Polish research and development laboratories for the machine tool industry. We traveled to Poznan and Katowice to meet with Polish machine tool purchasers. Our mission concluded with additional meetings in Warsaw with representatives of Metalexport and also Motoprojekt, which is the state enterprise that consults in planning Polish automotive production. Finally, members of the mission had an audience with the Polish Minister of the Machinery Industry who controls over 300 plants with a total employment of over 750,000 employees.

It is too early to know the actual total of requests for quotations that will result from this Polish trade mission. We estimate conservatively that more than \$50 million in requests will be received by the U.S. machine tool companies participating in the mission. We were told that in the next five years the metal working industries in Poland plan to expand their production by 86 percent. We were also asked about the possibility if U.S. machine tool companies providing turnkey projects in Poland.

We learned much from these trade missions as well as from individual efforts to obtain business in the U.S.S.R. and Eastern Europe. We saw the substantial potential for machine tool exports to the Soviet Union and Eastern European countries. There is no doubt that this development will take place. The only question is whether the U.S. machine tool industry will be permitted to participate. The U.S.S.R. and Eastern European countries have always been seriously interested in purchasing U.S.-made machine tools because of the known performance of our equipment. Our industry has earned a reputation for the quality and dependability of U.S.-built machines.

But we do not compete on equal terms for machine tool sales to the U.S.S.R. and Eastern Europe. Many of our allies have trade agreements with these countries which guarantee to West European companies substantial exports to this vast market. So far the United States does not have such agreements. The governments of West Europe and Japan provide generous financing to foster sales in the Soviet Union and Eastern Europe. So far we deny such credit, except for sales to Romania. And we continue to impose our unilateral export controls.

We have made some progress toward the reduction of this export control barrier. We started from a low point in 1961 when a major machine tool export license for sales to the U.S.S.R. was revoked after issuance. It appeared for a time that the United States would be kept entirely out of this emerging market. A breakthrough came with the decision in the mid-1960's to permit some U.S. machine tool participation in the FIAT automotive plant in the U.S.S.R. More recently the Commerce Department has licensed the sale of U.S. machine tools for two truck plants in the Soviet Union. There has been a selective but significant relaxation in the "firm order" requirement, which in the past has made it extremely difficult for U.S. companies to bid with any degree of certainty for business requiring a validated export license.

But progress has been agonizingly slow. Export license applications languished for months, some for more than a year, while the government debated whether to allow U.S. participation in the Russian truck plants. Even where there is no major policy issue raised by an application, it can take months to secure a license for equipment subject to unilateral controls. The licensing process is expensive and frustrating, particularly for the small company not familiar with all of the current practices and procedures. The potential business for U.S. industry equals millions of dollars in the Soviet Union and Eastern Europe. But this business can be and is lost to foreign competition not subject to these requirements.

More than a year ago the Office of Export Control initiated a review of machine tool export licensing requirements. Our industry was encouraged to believe that many machine tools would be deleted from the categories requiring validated export licenses for shipment to the U.S.S.R. and Eastern Europe. We interpreted the 1969 Act to require such decontrol for unilateral restrictions on non-strategic equipment readily available from foreign sources. We therefore cooperated when it was suggested that NMTBA provide data on the uses of various types of machine tools and their availability from sources outside the United States.

The Association responded, devoting substantial staff time and expense to its presentation. Four detailed reports were submitted demonstrating that a wide variety of machine tools do not have significant strategic applications and are readily available outside the United States from sources not subject to U.S. export controls. I regret that I must report that in the period of almost one year since

the last of these reports was submitted not a single machine tool has been decontrolled.

We do not suggest that this lack of progress is simply the result of bureaucratic inertia. In part, it is undoubtedly attributable to limited manpower and funds available to the Office of Export Control and other agencies coupled with the increased export license application work load. Unfortunately, NMTBA's informal discussions with government officials also lead us to the conclusion that at least a part of the problem lies in the lack of understanding outside the Commerce Department with regard to the advances made in machine tool design and production outside the United States.

Our industry is today in a critical condition. It is depressed and has excess capacity. We urgently need business to generate funds for research and development to keep our industry competitive and viable which is in the interest of the U.S. national security. Our workers need jobs. We cannot afford to lose their skills.

The important Soviet and Eastern European market is opening for substantial numbers of machine tools. Inestimable export opportunities also exist in the People's Republic of China with its 800 million people and unindustrialized economy.

Our overseas competition is prepared and already eagerly at work obtaining this business. We are making our own major effort, through our trade missions and active private negotiation, to secure a share of the remaining Soviet and Eastern European market. We will undoubtedly be pursuing a share of the market in the People's Republic with equal energy before too long. Our experience tells us that if we do not secure this share at the outset we are unlikely to attain a significant volume of sales in the foreseeable future. The Commerce Department has encouraged us to seek this business. President Nixon has repeatedly encouraged trade relations between the East and the West. This trade is in the interest of the United States at this time. The question is whether the continued handicap of what is an obsolete export control system will cause this opportunity to be lost.

### III. ACTION PROGRAM FOR IMPROVING THE U.S. EXPORT CONTROL SYSTEM

With this background, our program, to improve our export control system in the light of present-day conditions, is as follows:

#### *(1) Prompt Decontrol of Unilaterally Controlled Machine Tools and Accessories*

The first step should be the prompt decontrol of the unilateral restrictions on all machine tools and accessories except those whose export presents a clear and significant threat to our national security. In this way, U.S. companies will no longer encounter the unnecessary risks, loss of time and expense involved in obtaining validated licenses for these items.

Experience shows that this decontrol effort will not be effective unless Congress specifically directs its undertaking, prescribes the manner in which it will be done and provides the funds required to carry it out. The intent of the 1969 Act has not been carried out as it applies to unilateral controls on machine tools. To this end, we respectfully suggest that the Export Administration Act be amended to direct:

(A) That the Commerce Department undertake with other interested agencies an immediate study to determine which unilateral export controls on machine tools may be removed without resulting in a significant threat to our national security. Sufficient manpower and funds should be provided for this study.

(B) That except in extraordinary circumstances any machine tool that is available to the U.S.S.R. or Eastern Europe from sources outside the United States should be decontrolled.

(C) That representatives of the U.S. machine tool industry be invited to participate in these studies, not only to furnish data, but also to exchange views with representatives of interested government agencies. These industry participants should be included on joint technical committees consisting of government officials and industry representatives. These committees could be appointed by the Secretary of Commerce.

(D) That priority be given in decontrol efforts to those U.S. machine tools for which there is a significant potential export market.

(E) That this review be completed in time to permit decontrol of appropriate machine tools subject to unilateral export controls not later than July 1, 1972.

(2) *Critical Review of the U.S. Position on the Scope and Operation of the COCOM Embargo*

As noted, The COCOM multilateral controls operate in large measure to the disadvantage of United States companies. The COCOM commodities are clearly of a more sensitive character in terms of our national security interest and so should not be decontrolled without careful analysis. Nevertheless, the United States should make an effort to rationalize this list and the administration of COCOM controls in the light of world conditions today. We suggest the following steps:

(A) The United States Government, after consultation with the U.S. machine tool industry, should take the initiative to remove from the COCOM list those machine tools that are not of direct strategic significance to the United States and its allies.

(B) The United States should take the initiative in developing criteria for the granting of COCOM exceptions that will be uniformly followed by COCOM to the end that any COCOM member, including the United States, may expect to receive non-discriminatory treatment.

(C) The United States should adopt a policy of seeking exceptions to the COCOM list on request of U.S. companies consistent with such criteria.

(D) Commodities on the COCOM list shall be redefined after consultation with the U.S. machine tool industry to the end that all COCOM countries will interpret and apply the international embargo in the same way.

(3) *Financial Security for Export Licensing Risks*

Adoption of our recommendations would not end the necessity for securing validated licenses for many U.S. exports. One of the serious problems associated with these licenses is that they may expire or may not be renewed before the export transaction is completed. Non-renewal or revocation may be due to circumstances beyond the control of the manufacturer, such as a change in foreign relations. Many potential purchasers will not assume such a risk. In such cases the risk falls on the manufacturer.

This problem is particularly critical for machine tool builders. The large potential machine tool orders from the U.S.S.R. and other East European countries frequently specify deliveries over an extended time well exceeding the normal one-year export license validity period. And irrespective of the license period, the Office of Export Control reserves the right to cancel at any time an export license without prior notice. Severe economic hardship could befall a U.S. manufacturer in the event of such a revocation.

Insurance against such risks is available from the Export-Import Bank but currently not for sales to the U.S.S.R. and Eastern European countries other than Yugoslavia and Romania. The President can and should authorize Eximbank to provide insurance for the export licensing risk for sales to all countries. Moreover, we believe that legislation should be enacted so that this risk—that the U.S. Government will change its own mind—is insured without cost to the U.S. manufacturers.

Further protection could be provided by extending the initial validity period of export licenses to reflect the circumstances of an export transaction. In addition, it should be possible to enlarge the scope of export licenses to include authority to export replacement parts that may be required in the normal course of a machine's life.

ATTACHMENT "B"

"CONSOLIDATED LIST OF GOODS SUBJECT TO SECURITY EXPORT CONTROL," UNITED KINGDOM BOARD OF TRADE JOURNAL, OCTOBER 8, 1969

The attention of manufacturers and exporters is drawn to the following schedule of goods, which replaces the list appearing in the *Board of Trade Journal* for August 19, 1966. This schedule defines goods which are, or will be, subject to export control for reasons of national security. The control applies to most destinations, but the security implications arise principally in relation to exports to Albania, Bulgaria, China, Czechoslovakia, the Eastern Zone of Germany, Hungary, Mongolia, North Korea, North Vietnam, Poland, Rumania and the USSR.

The control does not represent a total ban on exports to the areas named above of all goods in the Schedule. Licences will be available for many types of goods, but for a number of reasons including the difficulties of precise definition and because the circumstances of particular cases can affect the position, it is

not possible to exclude these goods from the scope of licensing control or to say exactly what prospects are open to exporters. The notes in italics following particular items do, however, indicate where the best prospects lie.

Licences may also be available for goods covered by certain of the unannotated items, particularly Nos. AE24, 1002, 1092, 1649 and 1721. In addition, applications for export licences will be considered for any other goods on the Schedule. In these cases it is particularly important to submit full supporting information including a precise description of the goods involved, the use to which they are to be put and the ultimate destination.

The purpose of this control may be defeated if the above countries are supplied with technology relating to the manufacture of goods appearing on the Schedule. Great care should, therefore, be taken to prevent this happening, for example when technicians or students from these countries are visiting, or are being trained at, British factories. Where manufacturers or exporters wish to conclude an agreement involving the supply of technology to one of the above countries they should consult the Board of Trade or the appropriate Production Department in any case where it seems that the technology involved might assist with the manufacture of goods on the schedule.

The Schedule is published here for general information and guidance. It does not in this form have the force of law, nor does it include all goods subject to export licensing control. For the complete schedule of goods which currently require licensing, reference should be made to the Export of Goods (Control) Order 1967, as amended, and to the Strategic Goods (Control) Order 1967. Amendments will be made shortly to these Statutory Orders to give effect to the changes in the Schedule.

General inquiries about the schedule should be addressed to the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2266 or 3381) or to the appropriate Production Department. Applications for export or transshipment licences should be addressed to the Export Licensing Branch, Board of Trade, Broadway Buildings, 54 Broadway, London, S.W.1 (01-222 7877, Ext. 2628 or 2718), from whom further copies of the Schedule may be obtained, and of whom inquiries should be made in any case of doubt as to whether export licenses are required.

(Munitions list deleted.)

#### INDUSTRIAL LIST

##### *Group A. Metal-Working Machinery*

1002. Jig borers and jig grinders with accuracies of better than  $\pm 3$  microns ( $\pm 0.00012$  in).

1016. Grinding heads, and spindle assemblies (consisting of spindles and bearings as a minimal assembly) designed or rated for operation at speeds in excess of 120,000 revolutions per minute and machines specially designed for the utilization of such grinding heads.

Explanatory Note: This definition does not cover hand-held drills.

1072. Presses and specialized controls, accessories and parts therefor, as follows:

(a) Presses (stabilized equipment using rams) for applying high impact energy work forces through use of explosives or compressed gases including air;

(b) Presses specially designed or redesigned for the working of forming of metals, alloys or other materials with a melting point exceeding 1,900 centigrade;

(c) Hydraulic presses as follows:

(i) Vertical presses having a total rated force of over 10,000 tons;

(ii) Horizontal presses having a total rated force of over 5,000 tons.

(d) Isostatic press systems as follows:

(i) capable of achieving a maximum working pressure of 20,000 lb/in (1.406 kg/cm) or greater and possessing a chamber cavity with an inside diameter in excess of 16 in (40.6 cm), or

(ii) capable of achieving a maximum working pressure of 5,000 lb/in (351 kg/cm) or greater, and having a controlled thermal environment within the closed cavity, except those possessing a chamber cavity with an inside diameter of less than 5 in (127 mm) and which are also capable of achieving and maintaining a controlled thermal environment only between  $+80^{\circ}$  centigrade and  $-35^{\circ}$  centigrade.

Technical Note: Isostatic presses are those capable of pressurizing a closed cavity through various media (gas, liquid, solid particles, etc.) to create equal force in all directions within the cavity upon a workpiece or material.

(e) Control equipment, accessories and parts which are specially designed for the above presses.

*Hydraulic presses described in sub-item (c) not specially designed for use in forming aircraft, missile or space vehicle parts, in powder metallurgy or in ceramics production where the total rated force is less than 30,000 tons for vertical presses and 10,000 tons or less for horizontal presses; and*

*Parts included in sub-item (e) to service presses previously exported under the first part of this note.*

1075. Spin-forming machines, except those with a spindle drive motor of less than 50 horse power.

1080. Machines and equipment specially designed for making or measuring gas turbine blades.

1081. Machinery for use in the manufacture of aircraft, as follows:

(a) Machinery specially designed for the working or forming of aircraft sheet, plate or extrusion;

(b) Machinery specially designed for the milling of aircraft skin.

1036. Machines specially designed for the manufacture of jet engines, the following:

(a) Jet engine compressor case boring machines;

(b) Jet engine compressor or turbine disc turning machines;

(c) Jet engine rotor grinders.

1083. Gear making and/or finishing machinery, as follows:

(a) Gear grinding machines, generating type, capable of accepting gear blanks of 36 in (914 mm) work diameter or more;

(b) Gear grinding machines, generating type, designed to grind gears to a face-width of 7 in (177 mm) or more, for the production of helical or herring-bone gears;

(c) Capable of the production of gears of a module finer than 0.5 mm (diametral pitch finer than 48) and meeting a quality standard better than DIN 58405 Class 7.

Technical Note: If rated in AGMA or Admiralty standards and not rated in DIN 58405, AGMA 10 or Admiralty Class II shall be considered to be the equivalent of DIN 58405 Class 7.

1091. Numerical control systems, as follows:

(a) Numerical control systems specially designed for controlling coordinated simultaneous (contouring and continuous path) machining movements in a machine tool in two or more axes; and machine tools designed for or equipped with such controls;

*Two-axis systems having normal resolutions of 0.0004 in (0.01 mm) or coarser, and machine tool designed for or equipped with such controls, including systems of more than two axes providing not more than two axes are simultaneously co-ordinated.*

(b) Numerical control servo-driven measuring or gauging machines specially designed for measuring at any point of the contour the dimensional shape and contour characteristics of two- or three-dimensional objects including objects of revolution.

*Two-axis measuring or gauging machines specially designed for measuring at any point of the contour of the objects produced with machines of the type and characteristics described in the Note to sub-item (a).*

1092. Tracer controlled machine tools, as follows:

(a) Milling and boring machines, with an accuracy of  $\pm 0.001$  or ( $\pm 0.025$  mm) and a repeatability of  $\pm 0.0005$  in ( $\pm 0.0125$  mm) or better;

(b) Lathes with an accuracy of  $\pm 0.0004$  in ( $\pm 0.01$  mm) and a repeatability of  $\pm 0.0002$  in ( $\pm 0.005$  mm) or better;

(c) Specialized accessories and components for the above.

Technical Note: Accuracy should be measured by using a twin template check: one template is mounted on the template stand and is traced in one plane with the template stylus; a second identical template is mounted on the work stand, is traced by an electronic pick-up, and the tracing is recorded. The machine is embargoed if the recorded deviation between the two tracings does not exceed the accuracy figure stated in sub-items (a) or (b) above.

Repeatability should also be measured by using the twin template check. The machine is embargoed if the mean deviation, as recorded from at least seven successive checks, does not exceed the repeatability figure in sub-items (a) or (b) above.

ATTACHMENT "c"

EXCERPT FROM THE DEPARTMENT OF COMMERCE'S COMMODITY CONTROL LIST ENTRY,  
APPLICABLE TO NUMERICALLY CONTROLLED MACHINE TOOLS SUBJECT TO THE  
COCOM EMBARGO (EXPORT CONTROL REGULATIONS, SECTION 399.1)

Commodity Control List—399.1

71510(10)—7152(1)

CCL-39

Department of Commerce Export Control Commodity Number and Commodity Description	Unit	Preceding Number	Validated License Required for Country Groups Shown Below	GLV & Value Limits for Shipments to Country Groups			Special Provisions List
				T	V	X	
71510(10)A Machine tools designed for or equipped with numerical control systems specially designed for controlling coordinated simultaneous (contouring and continuous path) machining movements in a machine tool in two or more axes. (See § 399.2, Interpretation 7.)	421	QSTVWXYZ	500	500	0		
71510(11)B Other machine tools designed for or equipped with electronic closed loop control systems designed solely for positioning operations. (See § 399.2, Interpretation 7.)	422	QSTVWXYZ	500	500	0		
71510(12)A Presses, as follows: (a) stabilized equipment using rams, for applying high impact energy work forces through use of explosives or compressed gases, including air, (b) presses specially designed or re-designed for the working or forming of metals, alloys, or other materials with a melting point exceeding 1900° C., (c) vertical hydraulic presses with total rated forces over 10,000 tons, and (d) horizontal hydraulic presses having a total rated force of over 5,000 tons. (Specify model and rated tonnage capacity.)	421	QSTVWXYZ	500	500	0		
71510(13)A Spin-forming machines with drive motors of 50 horsepower or over.*	421	QSTVWXYZ	500	500	0		
71510(14)A Electron beam machines (including equipment utilizing the stimulated electromagnetic radiation technique, such as Lasers, Masers, and Irasers), except equipment using the "sparking" technique.	411	QSTVWXYZ	500	500	0		
71510(15)G Portable pipe bending machines; metal-polishing and buffing machines, manually operated bench and floor types; post type horizontal boring-drilling-milling machines (code 3411.11); folding-arm type radial drilling machines (code 3413.225); pipe perforating type drilling machines, n.e.c.; crankshaft (code 3415.1852) and roll (code 3415.1147) types of external cylindrical grinding machines; drawbench (code 3422.52), file grinder, knife and shear grinders (code 3415.7511), saw grinder (code 3415.77), and sharpener types of tool and cutter grinding machines; jewelers and watchmakers (code 3416.14) types of engine lathes; brake drum, car wheel, car wheel axle, non-automatic chucking (code 3416.5510), and non-automatic crankshaft turning (code 3416.9231) types of lathes, n.e.c.; pipe perforating and spline (code 3414.1182) types of milling machines, n.e.c.; chamfering and sheet types of surface grinding machines; and crank type planers, except gear planers.†	428	SZ	—	—	—		
71510(16)E Bonding machines for applying fins on tubing; axle straighteners; single-spindle automatic chucking lathes; and single-spindle between-center lathes.	428	SXYZ	—	—	100		
71510(17)D Other metalcutting and metalworking machines and machine tools. (Specify type machine.)‡	428	SWXYZ	—	—	100		
7152(1)A Foundry equipment specially designed for the manufacture of arms, munitions, and implements of war, including but not limited to the following: (a) artillery casting machines, and (b) centrifugal casting machines capable of casting tubes 6 feet or more in length with a wall thickness of 2 inches and over; and specially designed parts, n.e.c. (Specify by name.)§	421	QSTVWXYZ	500	500	0		

\* For explanation, see "General Information Regarding Commodity Control List" at beginning of § 399.1.

† Spin-forming machines are those which form hot or cold metal by the action of spinning or rotary motion. Examples of spin-forming machines are: Appel, Platurm, Hydrospin, Rollform, Roll, Shear-form, Spin forging, and Slick mill types.

‡ The code number indicated after each type machine is assigned by the Defense Supply Agency, Department of Defense, to identify specific industrial plant equipment. The machine nomenclatures and plant equipment codes are listed in the Industrial Plant Equipment Handbooks published by the U. S. Department of Defense, Defense Supply Agency, Cameron Station, Alexandria, Virginia 22314. Where such code number is shown for a particular machine, only the specific types of machines described under the Industrial Plant Equipment Handbook Code number are included in this entry.

§ Export authorization is required from the U. S. Department of State for projectile and ammunition production equipment. See Supplement No. 2 to Part 370.

¶ Arms, munitions, and implements of war are items designated in Supplement No. 2 to Part 370.

STATEMENT OF M. J. MIGHDOLL, EXECUTIVE VICE PRESIDENT OF THE NATIONAL ASSOCIATION OF SECONDARY MATERIAL INDUSTRIES, INC.

My name is M. J. Mighdoll, and I am the Executive Vice President of the National Association of Secondary Material Industries, Inc. (NASMI), and I am pleased to have the opportunity to submit this brief statement to the House Banking Committee's Subcommittee on International Finance with reference to H.J. Res. 939, H.J. Res. 1167 and H.R. 8180 which would extend the authority conferred by the Export Administration Act of 1969.

NASMI, of course, is the trade association which represents America's metal, paper, rubber and plastics recycling industries. Its 700 member firms are located throughout the United States and they include collectors, processors, consumers and exporters of recycled solid waste commodities, principally ferrous and non-ferrous metal scrap, waste paper and textiles.

Today, the Federal Government is vitally concerned about our Nation's growing mountains of solid waste materials which defy effective economic disposal and both Congress and the President have decreed that all impediments and disincentives to the recycling of these solid waste materials must be removed. Indeed, Congress passed the Resource Recovery Act of 1970 and expressly directed that all federally-sponsored disincentives to recycling should be eliminated at the earliest possible date. Recently, therefore, a Subcommittee of the Joint Economic Committee of the Congress held detailed hearings on the economic disincentives to recycling and as a result several agencies of the Executive Branch are presently studying ways and means to remove existing Federal tax disincentives to the use of recycled materials and how discriminatory rail and ocean freight rates which decrease or actually proscribe the utilization and exportation of recycled solid waste materials can be eliminated. The last mentioned problem is also under active consideration with the Export Expansion Act of 1971 currently before the Congress.

Clearly, therefore, we believe that both the Congress and our industry necessarily must be certain that legislation such as the Export Administration Act now before this Committee is enacted or continued in such form and administered in such manner that it will not improperly, unfairly and baselessly prohibit the exportation of recycled solid waste materials from the United States to foreign markets where they are sorely needed and where they can be advantageously sold by U.S. exporters.

In this connection, NASMI is deeply concerned, for example, by a proposal made by the American Iron and Steel Institute in testimony before the Senate Committee on Banking, Housing and Urban Affairs on March 14, 1972, whereby Section 4(1)(a) of the Export Administration Act would be amended in such manner as to enable or require the Secretary of Commerce to impose export controls on recycled scrap metals from the United States simply because there might be some increased foreign demand, or even the mere possibility of future increased foreign demand, for U.S. scrap metals. Patently, the adoption by your Committee of any such amendment would furnish a drastic new, totally unnecessary criterion for the triggering of export controls when such controls should be imposed only when they are absolutely necessary and there is a clear cut, present, existing need to limit "the excessive drain of scarce materials" as the Export Administration Act presently provides.

The Iron and Steel Institute stated in its testimony before the Senate Banking Committee that the Department of Commerce "can take no action until after abnormally high exports have occurred over a substantial period of time, and it has the full measure of statistical evidence that the exports in question are causing short supply and inflationary conditions in the domestic economy". Obviously, since the Congress specifically provided in the Export Administration Act of 1969 that "unwarranted restriction of exports from the United States has a serious, adverse effect on our balance of payments" and that uneven administration of export controls unnecessarily curtails U.S. exports, the Secretary of Commerce has clearly proceeded correctly, wisely and properly in his refusal to impose controls simply because some U.S. company or some U.S. industry envisions the future possibility of increased foreign demand for our recycled scrap materials.

Indeed, if any changes are to be wrought by Congress in the Export Administration Act at this time, then NASMI and the recycling industries it represents urge that proposals such as the one made by the Iron and Steel Institute be flatly rejected in favor of amendments which would make it abundantly clear—

(i) that export controls on recycled materials should be imposed only when it is absolutely necessary and unavoidable to prevent the excessive drain of scarce materials which are vital to our national security or our national economy; and

(ii) that once imposed, export controls on recycled materials should be removed immediately and without unnecessary delay when they are no longer required to prevent excessive drains of scarce materials, vital to our national security or our national economy.

Recently, for example, export controls on copper scrap were maintained in one form or another during lengthy periods when they were clearly unnecessary. And, regarding one of the examples referred to by the Iron and Steel Institute, the Commerce Department patently erred when it imposed tight export controls on nickel bearing stainless steel scrap during periods in 1969 and early 1970 when there was no supportable reason for the continuation of such controls. The law should be made clear: Export controls on recycled materials should be put into effect and continued in effect only when they are plainly needed for the reasons mentioned above and they must be removed as soon as those reasons cease to exist.

If the Committee requires further information regarding any of the matters discussed above, we will be pleased to endeavor to supply it. In the meantime, we sincerely hope the Committee will give full, favorable consideration to the suggestions we have submitted in this statement and that nothing will be done here which will frustrate or defeat the National recycling goals set by Congress in the Resource Recovery Act of 1970.

