

9. High-Performance Computers (Section 742.12)

Export Control Program Description And Licensing Policy

Export controls on high-performance computers (HPCs) will continue to be a high priority for the Administration as improvements in computer technology continue to enhance system performance.

On July 1, 1999, President Clinton announced new export controls on HPCs and semiconductors. This new policy included changes critical to maintaining the strong, vibrant high-technology industry critical to America's national security interests. The revised controls announced by the President maintain the four country groups announced in 1995, but amend the countries in, and controls levels for, those groups¹.

this announcement, on July 23, 1999, the President notified Congress of his decision to establish a new control level for the notification procedure for computers, pursuant to the National Defense Authorization Act for Fiscal Year 1998.

Commerce published a regulation in the *Federal Register* implementing the President's announcement on August 3, 1999. The regulation moved Brazil, the Czech Republic, Hungary, and Poland from Country Tier II to Tier I, allowing a license exception for all computer exports to these countries. The August regulation also raised the control level for Tier II countries from 10,000 to 20,000 millions of theoretical operations per second (MTOPS) with the expectation that the threshold will be raised again in six months to the 32,000-36,000 MTOPS range. It maintained the distinction between civilian and military end-users in Tier III countries. License levels for Tier III civilian end-users were immediately raised from 7,000 to 12,300 MTOPS. License levels for Tier III military end-users were retained at 2,000 MTOPS until the conclusion of the six month congressional review mandated by the National Defense Authorization Act of 1998 (NDAA), at which time Commerce will raise it to 6,500 MTOPS. Exports of any computer to proliferation-related end-users will still require a license.

Analysis of Control as Required by Section 6(f) of The Act

A. The Purpose of the Control

The purpose of the computer controls is to prevent the transfer or diversion of computers to end-users who might make unauthorized use of such computers. The controls demonstrate the degree of U.S. concern over illegitimate access to such machines, and assist the United States in its

efforts to obtain multilateral cooperation consistent with the HPC Agreement and our Wassenaar Arrangement obligations.

B. Considerations and/or Determinations of the Secretary of Commerce:

1. *Probability of Achieving the Intended Foreign Policy Purpose.* The widespread availability of the components and the technical know-how needed to build high-performance computers and the speed with which the technology of these items improves are challenges to achieving the objectives of these controls. Commerce's computer export controls are designed to permit the government to calibrate control levels and licensing conditions depending on the national security or proliferation risk posed by a specific destination, and to enhance U.S. national security and preserve the technological lead of the U.S. computer industry by ensuring that controls on computer exports and reexports are effective and do not unnecessarily impede legitimate computer exports.

2. *Compatibility with Foreign Policy Objectives* Preventing the proliferation of weapons of mass destruction and the means to deliver them is a fundamental goal of U.S. foreign policy. Since HPCs can be used in the development of weapons of mass destruction, our export controls on these items -- in concert with those of our allies -- which deny HPCs to potential proliferators are compatible with U.S. foreign policy objectives. Extensive U.S. participation in various multilateral control groups, specifically the Wassenaar Arrangement, demonstrate the U.S. commitment in this regard.

3. *Reaction of Other Countries* Since many of the countries that have the capacity to produce HPCs share U.S. opposition to the proliferation of weapons of mass destruction, there is a high level of cooperation between the United States and its allies and partners in multilateral export control regimes.

4. *Economic Impact on U.S. Industry* In Fiscal Year 1999, the United States approved 259 licenses for high-performance computers, valued at \$148.2 million. Of these, 23 licenses, with a value of \$6.1 million, were approvals of NDAA notifications for Tier III countries that were "objected to" for shipment without a license and became export license applications. The United States denied 10 license applications, valued at \$1.1 million; five of these denials, valued at \$0.6 million, were for NDAA notifications that were "objected to" and became export license applications. Commerce returned without action 280 license applications, valued at \$146.4 million, including 113 NDAA notifications valued at \$16.8 million that were "objected to" and became export license applications.

Enforcement of Control The Secretary has determined that the United States has the ability to enforce the control effectively. There are a relatively small number of manufacturers and exporters of high-performance computers, which increases our ability to inform exporters of

the controls. Additionally, much of the equipment can be readily identified and the manufacturers provide descriptions and pictures of their equipment on their web sites and in product literature with which enforcement personnel can become familiar. Licenses for the overseas manufacture of computers using U.S. components are granted only with extensive interagency review. As discussed earlier in this chapter, the President revised export controls on high-performance computers and semiconductors in July 1999. At that time, he committed the Administration to review high-performance export control policy every six months to ensure a

levels with advances in technology has preserved the ability to enforce effectively these controls.

. The Administration's

C. Consultation with Industry

The Department of Commerce, through its Information Systems Technical Advisory Committee (ISTAC) and the President's Export Council Subcommittee on Export Administration (PECSEA), has ongoing discussions with industry on the effect of high-performance computer controls. Industry has repeatedly urged that improvements in performance be taken into account in adjusting computer export policy. The Administration worked closely with industry to revise Security Safeguard Plans (SSPs) to make them more reflective of today's highly networked computing environments.

D. Consultation with Other Countries

The United States consults actively with allies and other potential supplier nations to ensure that they understand the basis for U.S. controls. The United States is working particularly closely with Japan. In Fiscal Year 1999, the United States agreed in The Wassenaar Arrangement to decontrol computers with performance levels of 6,500 MTOPS or less.

E. Alternative Means

The United States will continue to use diplomatic efforts to discourage other nations from acquiring HPCs for the development of weapons of mass destruction and other uses that threaten U.S. interests. We will also work closely with other supplier countries to increase the effectiveness of multilateral controls. However, these efforts can only supplement, not replace, the effectiveness of actual export controls.

F. Foreign Availability

The key to effective export controls is to set control levels above the level of computer capability that end-users with security and proliferation risks can obtain from non-U.S. sources as a result of widespread availability or through diversion from normal commerce. The President's July HPC policy announcement

from foreign manufacturers, including in configurations that exceed current U.S. computer control thresholds.

probably be available

ENDNOTES

1. *See part 740.7 of the EAR or Appendix III of this report for computer country tier listings.*