RECORD OF COMMENTS: COMPUTER TECHNOLOGY AND SOFTWARE, AND MICROPROCESSOR TECHNOLOGY ELIGIBLE FOR EXPORT OR REEXPORT UNDER LICENSE EXCEPTION

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Actions	Compliance	Procedures
(7) Replace the stub wing front spar assembly: (i) Get a repair scheme from the manufacturer; and (ii) Follow this repair scheme.	Upon the accumulation of 25,000 hours TIS on the fitting or within the next 100 hours TIS after the effective date of this AD, whichever occurs later.	Follow a repair scheme from Nomad Operations, Aerospace Support Division, Boeing Australia, PO Box 767, Brisbane, QLD 4000 Australia; telephone 61 7 3306 3366; facsimile 61 7 3306 3111. Get approval of this repair scheme through the FAA at the address specified in paragraph (f) of this AD.

What About Alternative Methods of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.13. Send your request to the Manager, Los Angeles Aircraft Certification Office, FAA. For information on any already approved alternative methods of compliance, contact Ron Atmur, Aerospace Engineer, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (562) 627–5224; facsimile (562) 627–5210.

How Do I Get Copies of the Documents Referenced in This AD?

(g) You may get copies of the documents referenced in this AD from Nomad Operations, Aerospace Support Division, Boeing Australia, PO Box 767, Brisbane, QLD 4000 Australia; telephone 61 7 3306 3366; facsimile 61 7 3306 3111. You may view these documents at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106.

Is There Other Information That Relates to This Subject?

(h) These Australian ADs also address the subject of this AD: AD Number AD/GAF–N22/2, Amendment 3, dated January 28, 2003, and AD Number AD/GAF–N22/70, Amendment 2, dated January 28, 2003.

Issued in Kansas City, Missouri, on October 20, 2003.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–26899 Filed 10–23–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Parts 740 and 774

[Docket No. 031016261–3261–01]

RIN 0694–AC95

Computer Technology and Software, and Microprocessor Technology Eligible for Export or Reexport Under License Exception

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Proposed rule.

SUMMARY: The Bureau of Industry and Security (BIS) proposes to expand the availability of license exceptions for exports and reexports of computer technology and software, and microprocessor technology on the Commerce Control List (CCL) of the Export Administration Regulations (EAR) under Export Classification Control Numbers (ECCNs) 3E002, 4D001 and 4E001. These ECCNs control technology and software that can be used for the development, production, or use of computers, and development and production of microprocessors. The goal of this proposed rule is to solicit public comments to assist BIS in evaluating the effect of the proposed amendments. In addition, this proposed rule requests industry to suggest alternatives for a different method or parameter for controlling exports of computers and microprocessors, and the technology and software therefore.

DATES: Comments must be received by November 24, 2003.

ADDRESSES: Written comments (four copies) should be sent to Sharron Cook, Regulatory Policy Division, Office of Exporter Services, Bureau of Industry and Security, Department of Commerce, 14th and Pennsylvania Avenue, NW., P.O. Box 273, Room 2705, Washington, DC 20230; or one copy e-mailed to: *scook@bis.doc.gov*; or faxed to 202–482–3355.

FOR FURTHER INFORMATION CONTACT: Sharron Cook, Senior Export Policy Analyst, Office of Exporter Services, Regulatory Policy Division, Bureau of Industry and Security, Telephone: (202) 482–2440.

SUPPLEMENTARY INFORMATION:

Background

The Bureau of Industry and Security (BIS) proposes to expand license exception availability under the Export Administration Regulations (EAR) for certain exports of computer technology and software and microprocessor technology. Industry has requested that BIS raise the Composite Theoretical Performance (CTP) eligibility level for computer and microprocessor technology and software to correspond with that for equipment, in order to enable companies to provide access to this technology and software to foreign nationals working in their U.S. and foreign facilities.

Computer Technology and Software

The EAR control the export and reexport of technology and software for the development, production, or use of computers with a CTP greater than 28,000 Millions of Theoretical Operations per Second (MTOPS) under Export Control Classification Numbers (ECCNs) 4D001 and 4E001 of the Commerce Control List (CCL). Such technology and software requires a license, for national security (NS) reasons, to all destinations except Canada. However, ECCNs 4D001 and 4E001 provide that License Exception TSR (section 740.6 of the EAR) is available for exports and reexports of such technology and software: (1) For computers of unlimited CTP to 22 countries; and (2) for computers with a CTP less than or equal to 33,000 MTOPS to countries listed in Country Group B (Supplement No. 1 to part 740). License Exception TSR availability for computer software and technology is inconsistent with License Exception CTP availability for computer hardware in two ways: (1) The countries eligible; and (2) the MTOPS level.

On June 4, 2002, BIS published a notice of inquiry (67 FR 39675), requesting information from industry to assist BIS in evaluating the license exception eligibility level of 33,000 MTOPS for exports and reexports of computer technology and software controlled under ECCNs 4D001 and 4E001. BIS received four comments in response to the notice of inquiry, all stating that the license exception threshold should be adjusted.

This proposed rule would remove License Exception TSR eligibility for certain computer technology and software under ECCNs 4D001 and 4E001, but would make this computer technology and software eligible for License Exception CTP (section 740.7 of the EAR). License Exception CTP currently only applies to computer hardware classified under ECCN 4A003. The 22 countries that are currently eligible to receive technology and

software for computers with unlimited CTP under License Exception TSR would continue to be eligible for the same, unlimited level of technology and software under License Exception CTP. All of these 22 countries are in "Computer Tier 1" for purposes of License Exception CTP. Technology and software for computers with a CTP

equal to or less than 150,000 MTOPS for export or reexport to Computer Tier 1 destinations other than these 22 countries would be eligible for License Exception CTP. Technology and software for computers with a CTP equal to or less than 75,000 MTOPS would be eligible for License Exception CTP to "Computer Tier 3" destinations.

Exports and reexports to countries in Country Group E:1 (terrorist supporting countries) will continue to be ineligible for License Exception CTP. The following chart shows the proposed eligibility thresholds under License Exception CTP.

PROPOSED COMPUTER TECHNOLOGY AND SOFTWARE ELIGIBILITY THRESHOLDS UNDER LICENSE EXCEPTION CTP

Unlimited CTP	22 "Tier 1" countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.
150,000 MTOPS	All other "Tier 1" countries: Antigua and Barbuda, Argentina, Bahamas, Bangladesh, Barbados, Belize, Benin, Bhutan, Bolivia, Botswana, Brazil, Brunei, Burkina Faso, Burma, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Colombia, Congo, Costa Rica, Cote d'Ivoire, Cyprus, Czech Republic, Dominica, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Gabon, Gambia (The), Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, Indonesia, Jamaica, Kenya, Kiribati, Korea (Republic of), Latvia, Lesotho, Liberia, Liechtenstein, Lithuania, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritius, Mexico, Micronesia (Federated States of), Monaco, Mozambique, Namibia, Nauru, Nepal, Nicaragua, Niger, Nigeria, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Romania, Rwanda, St. Kitts & Nevis, St. Lucia, St. Vincent and Grenadines, Sao Tome & Principe, San Marino, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, Sri Lanka, Surinam, Swaziland, Taiwan, Tanzania, Togo, Tonga, Thailand, Trinidad and Tobago, Tuvalu, Uganda, Uruguay, Vatican City, Venezuela, Western Sahara, Western Samoa, Zaire, Zambia, and Zimbabwe.
75,000 MTOPS	All "Tier 3" countries: Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Azerbaijan, Bahrain, Belarus, Bosnia & Herzegovina, Bulgaria, Cambodia, China (People's Republic of), Comoros, Croatia, Djibouti, Egypt, Georgia, India, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Macau, Macedonia (The Former Yugoslav Republic of), Mauritania, Moldova, Mongolia, Morocco, Oman, Pakistan, Qatar, Russia, Saudi Arabia, Tajikistan, Tunisia, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vanuatu, Vietnam, Yemen, and Federal Republic of Yugoslavia (Serbia and Montenegro).
Not eligible	Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

Microprocessor Technology

Technology for the development and production of microprocessors that have a CTP exceeding 530 MTOPS and an arithmetic logic unit with an access width of 32 bits or more are controlled by ECCN 3E002. License Exception TSR is available for the export and reexport of technology for microprocessors of unlimited CTP to occur to all Country Group B countries (*see* Supplement No. 1 to part 740 of the EAR), if all the criteria of License Exception TSR are met (*see* section 740.6 of the EAR for License Exception TSR requirements).

This rule proposes to make technology for the development and production of microprocessors also eligible for License Exception CIV. The threshold for eligibility would be limited by CTP at a level that is yet to be determined. License Exception CIV is available for exports and reexports of items that require a license for national security reasons only that are destined to civil end-users for civil end-uses in Country Group D:1, except North Korea. CIV may not be used for exports and reexports to military end-users or to known military uses. In addition to

conventional military activities, military uses include any proliferation activities described in part 744 of the EAR. It should be noted that a license is also required for transfer of items exported under License Exception CIV to military end-users or end-uses within Country Group D:1 countries.

Request for Comments

The goals of this proposed rule are to solicit public comments to assist BIS in evaluating the effect the proposed amendments to expand license exception availability would have on industry, and to discover whether industry would suggest a different method or parameter for controlling exports of computers and microprocessors, and the technology and software therefor. To ensure maximum public participation in the review process, comments are solicited for the next 30 days. In particular, BIS is interested in comments relating to the following:

1. What impact would the proposed revision of computer technology and software controls have on your company?

2. Is there another proposal regarding computer technology and software, and microprocessor technology controls that you would like Commerce to consider? If so, describe your proposal in detail and please give technical and other justifications for your proposal.

3. What is the highest CTP level for microprocessors currently being manufactured by your company?

4. What should be the CTP MTOPS limitation for microprocessor technology under the proposed License Exception CIV? Please provide detailed technical and other justification for your proposal.

5. How do other countries license the transfer of computer technology and software, and microprocessor technology? Have there been instances where your company has been placed at a competitive disadvantage based on current U.S. license requirements?

6. What are your predictions for the CTP level of microprocessors that will be in production 3 and 5 years from now? On what basis did you make your predictions?

7. What percentage of your research and development is accomplished: (1)

Outside of the United States; and (2) with the assistance of foreign nationals within the United States?

8. Is there an alternative method or parameter for controlling exports of computers and microprocessors and the technology and software therefore that industry believes would be more in-line with the way industry produces, develops, or measures these items?

Parties submitting comments are asked to be as specific as possible. The Department encourages interested persons who wish to comment to do so at the earliest possible time.

The period for submission of comments will close November 24, 2003. The Department will consider all comments received before the close of the comment period in developing final regulations. Comments received after the end of the comment period will be considered if possible, but their consideration cannot be assured. The Department will not accept comments accompanied by a request that a part or all of the material be treated confidentially because of its business proprietary nature or for any other reason. The Department will return such comments and materials to the persons submitting the comments and will not consider them in the development of final regulations. All comments on these regulations will be a matter of public record and will be available for public inspection and copying. The Department requires comments be submitted in written form.

The public record concerning these comments will be maintained in the Bureau of Industry and Security, Office of Administration, U.S. Department of Commerce, Room 6883, 14th and Constitution Avenue, NW., Washington, DC 20230; (202) 482–0637. This component does not maintain a separate public inspection facility. Requesters should first view BIS's FOIA Web site (which can be reached through *http://www.bis.doc.gov/foia*). If the records sought cannot be located at this site, or if the requester does not have access to a computer, please call the phone number above for assistance.

Although the Export Administration Act expired on August 20, 2001, Executive Order 13222 of August 17, 2001 (3 CFR, 2001 Comp., p. 783 (2002)), as extended by the Notice of August 14, 2002 (3 CFR, 2002 Comp., p. 306 (2003)), continues the Regulations in effect under the International Emergency Economic Powers Act.

Rulemaking Requirements

1. This proposed rule has been determined to be not significant for purposes of E.O. 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information, subject to the requirements of the Paperwork Reduction Act (PRA), unless that collection of information displays a currently valid OMB Control Number. This regulation involves collections previously approved by the Office of Management and Budget under control numbers 0694–0088, "Multi-Purpose Application," which carries a burden hour estimate of 45 minutes per manual submission and 40 minutes per electronic submission. Miscellaneous and recordkeeping activities account for 12 minutes per submission.

3. This rule does not contain policies with federalism implications as this term is defined in Executive Order 13132.

4. Pursuant to 5 U.S.C. 553(b)(A), the provisions of the Administrative Procedure Act requiring a notice of proposed rulemaking and the opportunity for public comment are waived, because this regulation involves a general statement of policy and rule of agency procedure. No other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this rule. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule under the Administrative Procedure Act or by any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable. However, in view of the importance of this proposed rule, which represents the first comprehensive statement of BIS's approach toward these issues, BIS is seeking public comments before these revisions take effect. The period for submission of comments will close November 24, 2003. BIS will consider all comments received before the close of the comment period in developing a final rule. Comments received after the end of the comment period will be considered if possible, but their consideration cannot be assured. BIS will not accept public comments accompanied by a request that a part or all of the material be treated confidentially because of its business proprietary nature or for any other reason. BIS will return such comments and materials to the persons submitting the comments and will not consider them in the development of the final rule. All public comments on this proposed rule must be in writing (including fax or e-mail) and will be a matter of public record, available for public inspection and copying. The

Office of Administration, Bureau of Industry and Security, U.S. Department of Commerce, displays these public comments on BIS's Freedom of Information Act (FOIA) Web site at *http://www.bis.doc.gov/foia*. This office does not maintain a separate public inspection facility. If you have technical difficulties accessing this Web site, please call BIS's Office of Administration at (202) 482–0637 for assistance.

List of Subjects

15 CFR Part 740

Administrative practice and procedure, Exports, Foreign trade, Reporting and recordkeeping requirements.

15 CFR Part 774

Exports, Foreign trade, Reporting and recordkeeping requirements.

Accordingly, parts 740 and 774 of the Export Administration Regulations (15 CFR parts 730–799) are proposed to be amended as follows:

PART 740—[AMENDED]

1. The authority citation for part 740 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; Sec. 901–911, Pub. L. 106–387; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2003, 68 FR 47833, August 11, 2003.

2. Section 740.7 is revised to read as follows:

§ 740.7 Computers (CTP).

(a) *Scope.* (1) *Commodities.* License Exception CTP authorizes exports and reexports of computers, including "electronic assemblies" and specially designed components therefor controlled by ECCN 4A003, exported or reexported separately or as part of a system for consumption in Computer Tier countries as provided by this section. When evaluating your computer to determine License Exception CTP eligibility, use the CTP parameter to the exclusion of other technical parameters for computers classified under ECCN 4A003.a or .b, and "electronic assemblies" under ECCN 4A003.c, except for parameters specified as Missile Technology (MT) concerns or 4A003.e (equipment performing analog-to-digital conversions exceeding the limits in ECCN 3A001.a.5.a).

(2) *Technology and software.* License Exception CTP authorizes exports and reexports of software and technology controlled by ECCNs 4D001 and 4E001 specially designed or modified for the "development", "production", or "use"

of computers, including "electronic assemblies" and specially designed components therefor classified in ECCN 4A003 or 4A994 to Computer Tier countries as provided by this section.

(b) *Restrictions.* (1) Related equipment controlled under 4A003.d and .g may not be exported or reexported under this License Exception when exported or reexported separately from eligible computers authorized under this License Exception.

(2) Access and release restrictions. (i) *Computers.* Computers eligible for License Exception CTP may not be accessed either physically or computationally by nationals of Cuba, Iran, Iraq, Libya, North Korea, Sudan, or Syria, except that commercial consignees described in Supplement No. 3 to part 742 of the EAR are prohibited only from giving such nationals user-accessible programmability.

(ii) *Technology and software.* Technology and software eligible for License Exception CTP may not be released to nationals of Cuba, Iran, Iraq, Libya, North Korea, Sudan, or Syria.

(3) Computers, software and technology eligible for License Exception CTP may not be reexported or retransferred without prior authorization from BIS, *i.e.,* a license, a permissive reexport, another License Exception, or "No License Required". This restriction must be conveyed to the consignee, via the Destination Control Statement, see § 758.6 of the EAR. Additionally, the end-use and end-user restrictions in paragraph (d)(3) of this section must be conveyed to any consignee in Computer Tier 3.

(4) You may not use this License Exception to export or reexport items that you know will be used to enhance the CTP beyond the eligibility limit allowed to your country of destination.

(c) *Computer Tier 1.* (1) *Eligible countries.* The countries that are eligible to receive exports under this License Exception include Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Bangladesh, Barbados, Belgium, Belize, Benin, Bhutan, Bolivia, Botswana, Brazil, Brunei, Burkina Faso, Burma, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Colombia, Congo, Costa Rica, Cote d'Ivoire, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia (The), Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, Indonesia, Ireland, Italy, Jamaica, Japan, Kenya,

Kiribati, Korea (Republic of), Latvia, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritius, Mexico, Micronesia (Federated States of), Monaco, Mozambique, Namibia, Nauru, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Rwanda, St. Kitts & Nevis, St. Lucia, St. Vincent and Grenadines, Sao Tome & Principe, San Marino, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Surinam, Swaziland, Sweden, Switzerland, Taiwan, Tanzania, Togo, Tonga, Thailand, Trinidad and Tobago, Turkey, Tuvalu, Uganda, United Kingdom, Uruguay, Vatican City, Venezuela, Western Sahara, Western Samoa, Zaire, Zambia, and Zimbabwe.

(2) *Eligible commodities.* All computers, including electronic assemblies and specially designed components therefor are eligible for License Exception CTP to Tier 1 destinations, subject to the restrictions in paragraph (b) of this section.

(3) *Eligible software and technology.* (i) Software and technology described in paragraph (a)(2) of this section are eligible for License Exception CTP to: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, or the United Kingdom; and.

(ii) Software and technology described in paragraph (a)(2) of this section for computers with a CTP less than or equal to 150,000 MTOPS are eligible for License Exception CTP to Tier 1 destinations, other than the destinations that are listed in paragraph (c)(3)(i) of this section, subject to the restrictions in paragraph (b) of this section.

(d) *Computer Tier 3.* (1) *Eligible countries.* The countries that are eligible to receive exports and reexports under this License Exception are Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Azerbaijan, Bahrain, Belarus, Bosnia & Herzegovina, Bulgaria, Cambodia, China (People's Republic of), Comoros, Croatia, Djibouti, Egypt, Georgia, India, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Macau, Macedonia (The Former Yugoslav Republic of), Mauritania, Moldova, Mongolia, Morocco, Oman, Pakistan, Qatar, Russia, Saudi Arabia, Tajikistan, Tunisia,

Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vanuatu, Vietnam, Yemen, and Federal Republic of Yugoslavia (Serbia and Montenegro).

(2) *Eligible commodities.* All computers, including electronic assemblies and specially designed components therefor having a CTP less than or equal to 190,000 MTOPS are eligible for License Exception CTP to Tier 3 destinations, subject to the restrictions in paragraphs (b) and (d)(4) of this section.

(3) *Eligible software and technology.* Software and technology described in paragraph (a)(2) of this section for computers with a CTP less than or equal to 75,000 MTOPS are eligible for License Exception CTP to Tier 3 destinations, subject to the restrictions in paragraphs (b) and (d)(4) of this section.

(4) *Eligible exports.* Only exports and reexports to permitted end-users and end-uses located in countries in Computer Tier 3 are permitted under License Exception CTP; however, License Exception CTP does not authorize exports and reexports to Computer Tier 3 for nuclear, chemical, biological, or missile end-users and end-uses subject to license requirements under § 744.2, § 744.3, § 744.4, and § 744.5 of the EAR. Such exports and reexports will continue to require a license and will be considered on a case-by-case basis. Retransfers to these end-users and end-uses in eligible countries are strictly prohibited without prior authorization.

(e) *Reporting requirements.* See § 743.1 of the EAR for reporting requirements of certain items under License Exception CTP.

PART 774—[AMENDED]

3. The authority citation for part 774 continues to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.;* 50 U.S.C. 1701 *et seq.;* 10 U.S.C. 7420; 10 U.S.C. 7430(e); 18 U.S.C. 2510 *et seq.;* 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.,* 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 46 U.S.C. app. 466c; 50 U.S.C. app. 5; Sec. 901–911, Pub. L. 106–387; Sec. 221, Pub. L. 107–56; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2003, 68 FR 47833, August 11, 2003.

4. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E002 is amended by revising the "CIV" paragraph in the License Exceptions section, to read as follows:

3E002 "Technology" according to the General Technology Note other than

that controlled in 3E001 for the "development" or "production" of "microprocessor microcircuits", "micro-computer microcircuits" and microcontroller microcircuits having a "composite theoretical performance" ("CTP") of 530 million theoretical operations per second (MTOPS) or more and an arithmetic logic unit with an access width of 32 bits or more.

*   *   *   *   *

License Exceptions

CIV: Yes, for general purpose microprocessors with a CTP equal to or less than [NUMBER YET TO BE DETERMINED].

TSR: * * *

*   *   *   *   *

5. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4D001 is amended by revising the License Exception section, to read as follows:

4D001 "Software" specially designed or modified for the "development", "production" or "use" of equipment or "software" controlled by 4A001 to 4A004, or 4D (except 4D980, 4D993 or 4D994), and other specified software, see List of Items Controlled.

*   *   *   *   *

License Exceptions

CIV: N/A

TSR: Yes, for all other "software" not eligible for License Exception CTP.

CTP: Yes (see 740.7 of the EAR for eligibility criteria).

*   *   *   *   *

6. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4E001 is amended by revising the License Exception section, to read as follows:

4E001 "Technology" according to the General Technology Note, for the "development", "production" or "use" of equipment or "software" controlled by 4A (except 4A980, 4A993 or 4A994) or 4D (except 4D980, 4D993, 4D994), and other specified technology, see List of Items Controlled.

*   *   *   *   *

License Exceptions

CIV: N/A.

TSR: Yes, for all other "technology" not eligible for License Exception CTP.

CTP: Yes (see 740.7 of the EAR for eligibility criteria).

*   *   *   *   *

Dated: October 20, 2003.

Matthew S. Borman,

Acting Assistant Secretary for Export Administration.

[FR Doc. 03–26788 Filed 10–23–03; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG–132483–03]

RIN–1545–BC40

Remedial Actions for Tax-Exempt Bonds; Hearing Cancellation

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Cancellation of notice of public hearing on proposed rulemaking.

SUMMARY: This document cancels the public hearing on proposed regulations under section 103(a) of the Internal Revenue Code that amend the final regulations that provide certain permitted remedial actions for tax-exempt bonds issued by State and local governments.

DATES: The public hearing originally scheduled for November 4, 2003, at 10 a.m., is cancelled.

FOR FURTHER INFORMATION CONTACT: Sonya M. Cruse of the Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel (Procedure and Administration), (202) 622–4693 (not a toll-free number).

SUPPLEMENTARY INFORMATION: A notice of proposed rulemaking and notice of public hearing that appeared in the **Federal Register** on Monday, July 21, 2003 (68 FR 43059), announced that a public hearing was scheduled for November 4, 2003, at 10 a.m., in the auditorium, Internal Revenue Service Building, 1111 Constitution Avenue, NW., Washington, DC. The subject of the public hearing is proposed regulations under section 103(a) of the Internal Revenue Code.

The public comment period for these regulations expired on October 14, 2003. The outlines of oral testimony were due on October 14, 2003. The notice of proposed rulemaking and notice of public hearing, instructed those interested in testifying at the public hearing to submit an outline of the topics to be addressed. As of Tuesday, October 21, 2003, no one has submitted an outline of oral testimony. Therefore,

the public hearing scheduled for November 4, 2003, is cancelled.

Cynthia E. Grigsby,

Acting Chief, Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel (Procedure and Administration).

[FR Doc. 03–26941 Filed 10–23–03; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 100

[CGD05–03–156]

RIN 1625–AA08

Special Local Regulations for Marine Events; Nanticoke River, Sharptown, MD

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to establish permanent special local regulations for the Sharptown Outboard Regatta, a marine event held on the waters of the Nanticoke River near Sharptown, Maryland. This action is necessary to provide for the safety of life on navigable waters during the event. This action is intended to restrict vessel traffic in portions of the Nanticoke River during the event.

DATES: Comments and related material must reach the Coast Guard on or before January 22, 2004.

ADDRESSES: You may mail comments and related material to Commander (oax), Fifth Coast Guard District, 431 Crawford Street, Portsmouth, Virginia 23704–5004, hand-deliver them to Room 119 at the same address between 9 a.m. and 2 p.m., Monday through Friday, except Federal holidays, or fax them to (757) 398–6203. The Auxiliary and Recreational Boating Safety Branch, Fifth Coast Guard District, maintains the public docket for this rulemaking. Comments and material received from the public, as well as documents indicated in this preamble as being available in the docket, will become part of this docket and will be available for inspection or copying at the above address between 9 a.m. and 2 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: S. L. Phillips, Project Manager, Auxiliary and Recreational Boating Safety Branch, at (757) 398–6204.

SUPPLEMENTARY INFORMATION:

Computer Coalition
for **Responsible Exports**

November 24, 2003

Sharron Cook
Senior Export Policy Analyst
Office of Export Services
Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Avenue, NW
Washington, DC 20230

> **Re:** **Computer Technology and Software, and Microprocessor Technology Eligible for Export or Reeexport Under License Exception, 68 Fed. Reg. 60891 (Oct. 24, 2003) (proposed rule)**

Dear Ms. Cook:

On behalf of the Computer Coalition for Responsible Exports (CCRE), we are writing to comment on the above-referenced technology regulations proposed by the U.S. Department of Commerce. We believe that the proposed rule contains significant improvements upon the current knowledge control system and represents a positive step toward promoting America's technological innovation and global competitiveness. However, for the reasons discussed, we recommend that the final rule include additional adjustments of the MTOPS levels and country groupings in order to account for technology, market, and national security realities.

CCRE is an alliance of American computer companies and allied associations established to inform policymakers and the public about the nature of the computer industry—its products, technological advances, and global business realities. Our members include Dell Computer Corporation, Hewlett Packard Company, IBM Corporation, Intel Corporation, Sun Microsystems, Inc., Unisys Corporation, AeA, and the Information Technology Industry Council (ITI).

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Our industry has a long history of cooperation with the U.S. government on security-related technology issues, and we are committed to providing the Administration with information concerning rapidly changing technology and market conditions that is essential to developing effective U.S. hardware and technology export control policies.

We hope that the attached comments will assist the Administration in evaluating the effectiveness of the proposed regulation. Please do not hesitate to contact us if we can be of further assistance.

Sincerely,

Dan Hoydysh
Chairman, CCRE

Enclosure

I.   INTRODUCTION

The Bureau of Industry and Security (BIS) has requested comments on its proposal to expand license exception availability under the Export Administration Regulations (EAR) for certain exports of computer technology and software and microprocessor technology. This paper provides CCRE's comments, as well as responses to the specific questions raised by the BIS.

As discussed below, we believe that the Administration's decision to update the prevailing MTOPS levels and country groupings for technology and software represents an important step in promoting America's technological innovation and global competitiveness and, in turn, supporting DoD's "run faster" strategy for military-technological preeminence. By taking this important action, the Administration will also help to fuel economic growth and job creation in this important sector of the U.S. economy.

CCRE has emphasized that performance-based computer export controls are inherently flawed because they cannot keep pace with rapid changes in technology. As the President has correctly observed, MTOPS controls "have the shelf life of sliced bread." But since the current system is now based on the MTOPS performance metric, the Administration needs to continually update computer knowledge controls to account for technological change. The proposal to expand license exception availability for certain computer technology and software and microprocessor technology is a necessary reform that will assist the Administration in refocusing export control resources on the technologies that continue to represent genuine national security risks.

II.   COMPUTER TECHNOLOGY AND SOFTWARE CONTROLS

We welcome the Administration's proposal to make computer technology and software eligible for License Exception CTP. The proposal is forward-looking in three important respects. First, it seeks to rationalize the country tiers by distinguishing between the national security risks posed by "Tier 3" countries (*e.g.*, China, Pakistan) as compared with other "Country Group B" countries (*e.g.*, Argentina, Brazil, Chile, Mexico). Second, it reflects the need to increase the MTOPS limits for computer technology and software in order to account for recent technological developments in the industry. Finally, it continues sanctions against rogue states that present serious proliferation risks (*e.g.* Cuba, Iran, Libya, North Korea, Sudan, and Syria). In our analysis, however, the proposed regulation can be more effective if the Administration further adjusts the Tier 1 country groupings and MTOPS levels.

Treatment of Tier 1 Countries

The proposed regulation preserves unlimited CTP for 22 countries (*i.e.*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), but sets a 150,000 MTOPS limit for the remaining "Tier 1" countries, including important U.S. trading partners like Argentina, Brazil, Chile, Mexico, and Singapore. In our analysis, it is unnecessary to subject these remaining "Tier 1" countries to an MTOPS limit. Countries are classified as "Tier 1" under License Exception CTP precisely because they "do not pose proliferation or security threats to the United States." *See* 66 Fed.

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Reg. at 5543 (emphasis added). Just as computer hardware exports to Tier 1 destinations have no MTOPS limit, there should be no MTOPS limit for exports of computer technology and software to these destinations.

MTOPS Level for Tier 3 Countries

The proposed regulation sets a CTP limit of 75,000 MTOPS for exports of computer technology and software to Tier 3. We believe the rationale for this 75,000 MTOPS level needs to be reevaluated in terms of the current export control threshold for hardware. Specifically, we urge the Administration to harmonize the Tier 3 CTP levels for hardware and technology/software. In order words, the Tier 3 MTOPS limit for technology and software exports should be set at 190,000 MTOPS.

On this point, we note that this technology/software relates to general-purpose commercial computer systems and has no inherent military-specific value. The last time the Wassenaar Arrangement countries analyzed these technologies/software in December 2000, the international consensus was that technology/software below the 150,000 MTOPS level was <u>not</u> "Very Sensitive." If the President agreed that 150,000 MTOPS technology/software was not very sensitive in December 2000, then, quite clearly, 190,000 MTOPS technology/software is not very sensitive at this time (*i.e.*, three years later). The Tier 3 CTP limit for technology and software exports should therefore be set at 190,000 MTOPS.

III.   MICROPROCESSOR TECHNOLOGY CONTROLS

The proposed rule would make microprocessor technology below a yet-to-be-specified MTOPS level eligible for License Exception CIV. Consistent with the analysis of the Semiconductor Industry Association (SIA), we support the Administration's decision to make the export of microprocessor technology CIV-eligible. However, just as microprocessor hardware for civilian end-use is not subject to an MTOPS limit under License Exception CIV, we believe that there should similarly be no MTOPS limit for commercial microprocessor technology.

The technology controlled by ECCN 3E002 relates to the development and production of general purpose semiconductors intended for broad-based civilian applications, including standard commercial computing, video games, and telecommunications. The technology is <u>not</u> designed for military use and has no military-specific value. In fact, 3E002 technology relates to production of the most basic building blocks of the global information infrastructure and is already available from foreign commercial sources. Under these circumstances, there should be no MTOPS limitation on microprocessor technology eligible for license exception CIV and, as the SIA suggests, the U.S. should, over the long-term, pursue the elimination MTOPS controls under 3E002 pursuant to the Wassenaar Arrangement.

IV. ADDITIONAL QUESTIONS POSED BY COMMERCE DEPARTMENT

1. What impact would the proposed revision of computer technology and software controls have on your company?

Implementation of the proposed regulation—with the adjustments described above—will provide critical short-term relief for CCRE member companies. In today's Networked World, rapid and accurate transfers of data and knowledge within global corporate enterprises have made 24/7 collaboration among employees not only possible, but absolutely essential to a company's survival. Similarly, in the area of manufacturing and services, the sharing of technical data and know-how is critical to the competitiveness of our industry. Finally, in order to acquire and develop next-generation technologies, U.S. computer companies need to employ the most talented scientists and engineers in the world, which may include foreign nationals. In the United States, for example, more than 46% of physical science PhDs that graduated from U.S. universities over the last decade were foreign nationals. The U.S. computer industry depends in substantial part on this pool of talent in order to fuel its technological advancement.

The current composite theoretical performance (CTP) limit—which is significantly outdated—disrupts our ability to efficiently share knowledge across our operations and threatens to have a significant impact on America's global competitiveness and technological leadership. For example, the current CTP limit stifles the ability of U.S. companies to effectively exploit its foreign national talent base. Many of our foreign national employees have developed valuable skills working on development projects below the 28,000 MTOPS control threshold but are now inhibited from contributing their talent and know-how to follow-on development projects. Bearing in mind that the computer industry now produces commercial computer systems exceeding 190,000 MTOPS, the current control threshold of 28,000 MTOPS frustrates the effective utilization of our foreign national talent base and poses immeasurable opportunity costs for our R&D activities.

Finally, the inefficiencies generated by the current CTP limit also increasingly stifle U.S. companies' ability to efficiently integrate R&D, manufacturing and service activities across our global enterprise, and with manufacturing subcontractors. At the same time that foreign computer companies are optimizing their global operations, U.S. companies must configure their R&D, manufacturing, and service activities pursuant to outmoded CTP limits that cause gross inefficiencies and competitive disadvantages. The proposed regulation—with the adjustments we recommend— will promote the U.S. computer industry's commercial competitiveness and support the timely development of next-generation computer technologies and products.

2. **Is there another proposal regarding computer technology and software, and microprocessor technology controls that you would like Commerce to consider? If so, describe your proposal in detail and please give technical or other justifications for your proposal.**

    CCRE urges the Administration to implement the proposed regulation—with the adjustments discussed above—as soon as possible. This is essential to provide short-term relief to the U.S. IT industry.

    Independent of these reforms, we have asked the Administration to develop ENC-type license exceptions for intracompany sharing of knowledge that: (a) permit U.S. IT companies to transfer controlled knowledge to their foreign subsidiaries; and (b) permit U.S. IT companies to transfer controlled knowledge to their lawfully admitted foreign national employees working within the United States. For further details regarding our knowledge control reform proposal, please consult the memorandum that the U.S. computer industry transmitted to Under Secretary Juster in April 2003.

3. **What is the highest CTP level for microprocessors currently being manufactured by your company?**

    CCRE understands that IBM currently sells a PowerPC 970 microprocessor rated at 24,168 MTOPS. We note that, earlier this year, scientists, engineers, and students at the Virginia Polytechnic Institute clustered together 1,100 off-the-shelf Apple Macintosh computers (each containing two Power PC 970 chips), in order to produce a system that computes 7.41 trillion operations per second. This cluster of commodity PCs—which took approximately three months to build and cost slightly more than $5 million—will rank as one of the "top 10" fastest computers in the world. This example illustrates how access to computing power—and the technology to build these powerful systems—is virtually uncontrollable

4. **What should be the CTP MTOPS limitation for microprocessor technology under the proposed License Exception CIV? Please provide detailed technical and other justification for your proposal.**

    See our discussion in Section III above.

5. **How do other countries license the transfer of computer technology and software, microprocessor technology? Have there been instances where your company has been placed at a competitive disadvantage based on current U.S. license requirements?**

    CCRE does not have detailed information regarding foreign knowledge control regimes. This information should be readily available to the U.S. government through the Wassenaar Arrangement. Since the second question solicits proprietary, company-

specific information, CCRE is unable to provide details regarding how U.S. license requirements have prejudiced individual companies.

6. **What are your predictions for the CTP level of microprocessors that will be in production 3 and 5 years from now? On what basis did you make your predictions?**

CCRE member companies—including IBM, Sun, and Intel—have provided these data to the Administration in the past on a confidential basis. Such proprietary company data cannot, however, be placed on the public record.

7. **What percentage of your research and development is accomplished: (i) outside the United States; and (ii) with the assistance of foreign nationals within the United States?**

CCRE does not have access to these proprietary company data.

8. **Is there an alternative method or parameter for controlling exports of computers and microprocessors and the technology and software therefore that industry believes would be more in-line with the way industry produces, develops, or measures these items.**

The Administration's technology reform proposal should be implemented as soon as possible in order to provide needed short-term relief to U.S. IT companies. The development of a more effective export control system should proceed on a parallel track, and should not delay the implementation of these short-term reforms.

As described in our prior submissions to the Administration, CCRE, as well as several experts in the U.S. defense and security community, has concluded that performance-based export controls on dual-use computer systems are ineffective, irrelevant, and need to be eliminated. CCRE believes that a more effective and relevant strategy to protect national security and promote U.S. technological leadership needs to include the following key elements:

- continued embargoes on exports to "rogue states," including Iran, Cuba, Libya, North Korea, Sudan, and Syria;

- continued application of ITAR controls on computers specially designed for military applications;

- more effective safeguards for classified national security application software;

- U.S. and multilateral controls focused on the identification of dangerous end-users and the prevention of diversion to proliferation activities; and

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- a forward-looking technology strategy to ensure that the U.S. military "runs faster" than its potential adversaries.

In our previous submissions to the Administration, we outlined proposals for how the current system of end-user controls can be made more effective through enhanced information-sharing, greater focus, and multilateral cooperation. CCRE remains committed to working with the Administration toward the development of a more effective computer export control regime.

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AeA

Advancing the Business of Technology®

November 24, 2003

Sent via email

Ms. Sharron Cook
Senior Export Policy Analyst
Office of Export Services
Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Avenue, NW
Washington, DC 20230

> **Re: Computer Technology and Software, and Microprocessor
> Technology Eligible for Export or Reexport Under License Exception,
> 68 Fed. Reg. 60891 (Oct. 24, 2003), Docket No. 031016261-3261-01.**

Dear Ms. Cook:

AeA, the largest U.S. high-tech trade association, welcomes the opportunity to respond to the Proposed Rule published in the *Federal Register* on October 24, 2003. Knowledge controls relevant to computers, microprocessors and software are a critical issue for AeA members, affecting not only overseas sales, but also transfers of collaborative technology within the global operations of AeA member companies. Changes in export controls specified in this Proposed Rule can have a substantial affect on U.S. companies' ability to maintain technological advantages in a very competitive global environment.

AeA views the Proposed Rule as a positive step, and recommends that the specific changes proposed in the area of computer system technology and software controls be implemented immediately.

The following commentary deals with the details of the proposals, and responds to questions raised by the Bureau of Industry & Security (BIS) in the notice.

I.   COMPUTER TECHNOLOGY AND SOFTWARE CONTROLS

AeA agrees with the Computer Coalition for Responsible Exports (CCRE) that performance-based computer export controls are inherently flawed because they *cannot keep pace with rapid changes in technology.* However, while the United States retains CTP-based controls, it is critical that control thresholds are regularly reexamined and updated to reflect the evolution of commercial technology.

AeA supports the proposal to make computer technology and software eligible for License Exception CTP. This represents an improvement over the current situation in that it clearly separates the control structure for this category of technology from the former Cold War country groupings.

However, despite a more accurate focus on specific strategic concerns for computer system technology, the Proposed Rule did not extend the Tier groupings that exist for hardware to technology and software under CTP. The Rule seeks to preserve unlimited CTP for 22 countries (*i.e.*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), but sets a 150,000 MTOPS limit for the remaining "Tier 1" countries.

Former Tier II countries subject to the 150,000 MTOPS limit are not proliferation or security threats to the United States and for that reason have no CTP limit in terms of computer hardware exports. As a result, AeA feels that there is no justification for this threshold for technology, and urges that it be removed.

For Tier III, the Rule would impose a CTP limit of 75,000 MTOPS. We urge that this limit be harmonized with the current hardware limit of 190,000, and be kept consistent with any future changes. Allowing technology and software transfers up to the hardware limit would not allow end-users in these countries access to computers that they could not already obtain via hardware sales. It could, however, simplify enforcement and improve the ability of companies to transfer technology and software to non-U.S. national employees within the United States and to U.S. subsidiaries overseas.

AeA also strongly urges that the technology and software thresholds be reviewed on an annual basis until performance metrics are eliminated.

II.   MICROPROCESSOR TECHNOLOGY CONTROLS

The Proposed Rule would make microprocessor technology eligible for License Exception CIV. AeA joins the Semiconductor Industry Association (SIA) and CCRE and the rest of the industry in supporting this approach.

However, like SIA and CCRE, we believe there should be no MTOPS limit for civilian end-use exports of microprocessor technology under CIV, now that corresponding MTOPS limits on the chips themselves have been removed. Control thresholds based on abstract throughput measures such as CTP no longer serve any strategic purpose, and greatly complicate the critical transfer of development/production technology within U.S. companies

III.   ADDITIONAL QUESTIONS POSED BY COMMERCE DEPARTMENT

1. **What impact would the proposed revision of computer technology and software controls have on your company?**

   While of itself not a solution to problems arising from knowledge controls, implementation of the Proposed Rule will provide critical short-term relief and should be accomplished as soon as possible.

   The current control level of 28,000 MTOPS, as well as the TSR eligibility limit of 33,000 for most Tier I countries, is seriously out of date. AeA member companies have been able to use License Exception CTP for some time at 190,000 MTOPS for Tier III countries, and some companies offer regular commercial systems in excess of that limit.

   The low thresholds have become a serious impediment to transfer of collaborative technology within U.S. companies, including both to overseas subsidiaries and to U.S. employees under the Deemed Export rule. As product thresholds increase, these limits have affected an increasing portion of the employee population of relevant AeA members, causing delay due to license approval cycles, uncertainty, and conditions.

2. **Is there another proposal regarding computer technology and software, and microprocessor technology controls that you would like Commerce to consider? If so, describe your proposal in detail and please give technical or other justifications for your proposal.**

   AeA supports the CCRE proposal for the development of an ENC-type license exception for intracompany sharing of knowledge that: (a) permits U.S. IT companies to transfer controlled knowledge to their foreign subsidiaries; and (b) permits U.S. IT companies to transfer controlled knowledge to their lawfully admitted foreign national employees working within the United States.

   Such a license exception would permit eligible U.S. exporters to transfer controlled technology within their own organizations for their own use in return for a commitment to implement fundamental safeguards on the internal movement of technology.

3. **What is the highest CTP level for microprocessors currently being manufactured by your company?**

   Proprietary data on microprocessor performance must be provided by AeA member companies directly.

4. **What should be the CTP MTOPS limitation for microprocessor technology under the proposed License Exception CIV? Please provide detailed technical and other justification for your proposal.**

   Consistent with the President's decision to eliminate MTOPS controls on microcircuit devices, the technology for the development and production of these general-purpose devices should likewise be eliminated.

   As a temporary measure, CIV eligibility should be set to the level of prevailing production at the time of regulatory implementation. As long as controls continue to exist on dual use microprocessor technology, this principle, which was used to set the current level, continues to be useful.

5. **How do other countries license the transfer of computer technology and software, microprocessor technology? Have there been instances where your company has been placed at a competitive disadvantage based on current U.S. license requirements?**

   AeA does not have information regarding foreign knowledge control regimes. Information on license requirements in this area, approval policy and enforcement should already be available to the Government through the Wassenaar Arrangement and through bilateral contact with Wassenaar member states.

   AeA is not in a position to provide case-specific examples for individual companies' experiences under the current knowledge control system.

6. **What are your predictions for the CTP level of microprocessors that will be in production 3 and 5 years from now? On what basis did you make your predictions?**

   AeA members that produce microprocessors have already provided the Administration with these data. Such proprietary company data cannot be placed on the public record.

7. **What percentage of your research and development is accomplished: (i) outside the United States; and (ii) with the assistance of foreign nationals within the United States?**

   AeA does not have access to these proprietary company data.

8. **Is there an alternative method or parameter for controlling exports of computers and microprocessors and the technology and software therefore that industry believes would be more in-line with the way industry produces, develops, or measures these items.**

   AeA fully supports the position of CCRE that performance-based export controls on dual-use computer systems are ineffective, irrelevant, and need to be eliminated.

   CCRE has pointed out that a more effective and relevant strategy to protect national security and promote U.S. technological leadership needs to include the following elements:

   - continued embargoes on exports to "rogue states," including Iran, Cuba, Libya, North Korea, Sudan, and Syria;

   - continued application of ITAR controls on computers specially designed for military applications;

   - more effective safeguards for classified national security application software;

   - U.S. and multilateral controls focused on the identification of dangerous end-users and the prevention of diversion to proliferation activities; and

   - a forward-looking technology strategy to ensure that the U.S. military "runs faster" than its potential adversaries.

We again appreciate the ability to provide comments on these important proposals.

Sincerely,

AnnMarie Treglia
Director, International Trade Regulation

CTP as a measure of technology

Ms: Sharron Cook,
scook@bis.doc.gov,

This is a response to your request for comments as referenced above. I am limiting my remarks to the subset of question 8 that refers to the use of CTP as a measure of microprocessor technology that is (should be) subject to control. In this discussion I will leave aside the issue of the validity of CTP as a measure of processor performance. That point has been addressed by the ISTAC on a number of occasions over the past 5 or more years.

Any effort to continue the control of microprocessor technology must consider what, if any, of the technology required for the development of microprocessors is not already available to the destinations of concern. This analysis needs to consider the elements that make up a microprocessor, as compared to the elements that make up items that are not controlled to those same destinations.

	Elements					
	ALU's	Memory	Clock	Control	FAB Tech.	
Microporcessor	X	X	X	X	X	
Graphics chip	X	X	X	X	X	
IDE Controler	X	X	X	X	X	
Network Router	X	X	X	X	X	

In the chart, above, we have listed four example technologies. Each of these requires a broad set of design elements. All of the elements are present, and required, in all of the technologies and each requires application of knowledge in each/all of the elements. For example, a current generation graphics processor chip contains ALU's capable of 100 Gf of 32 Bit FP performance. This level of performance would be approximately 50K CTP if the graphics chip were to be subjected to CTP analysis.

Further, export controls for all of the example products, except for the microprocessor, are limited to the T-7 country group. There are no multi-national controls on those other products. Thus, countries of concern in the "Tier 3" group can easily obtain the needed component technology and then simply re-package it as a microprocessor.

We highlighted FAB (Fabrication) technology in the table, above. Existing controls on semi-conductor manufacturing equipment and its' supporting technology provide controls that impact the improvement of all of the listed semi-conductor components. This provides a continuing control on the ability of a country of concern being able to product state of the art microprocessors.

We therefore recommend that the current control in 3E002 be eliminated.

November 24, 2003

Ms. Sharron Cook
Regulatory Policy Division
Office of Exporter Services
Bureau of Industry and Security
U.S. Department of Commerce
14th and Pennsylvania Avenue, N.W.
Washington DC 20230

Re: Comments on Proposed Rule Regarding Computer Technology and
        Software and Microprocessor Technology Eligible for Export or Reexport
        Under License Exception (68 Fed. Reg. 60,891; October 24, 2003)

Dear Ms. Cook:

    IBM appreciates the opportunity to provide comments on the Bureau of Industry
and Security's ("BIS") October 24, 2003 proposed rule (the "proposed rule") concerning
the export control of semiconductor technology and computer technology and software.

    We believe that the expansion of license-free treatment for exports of certain
general purpose microprocessor and computer technology and software could
substantially ease current barriers to intra-company collaboration among IBM employees
working to develop IBM products. IBM operates in over 160 countries and in 2002 more
than half of our revenue was generated outside of the US. To remain competitive in this
global marketplace, IBM needs to be able to seamlessly share its technologies within our
global operations among *all* of our employees as well as to transfer certain portions of
our technologies to our customers and business partners.

    The current control thresholds have been out of step with the rapid commercial
technology advancements (e.g., the 3E002 limit was set in 2000 at 530 MTOPS while
today IBM's PowerPC970 being used in Apple computers is rated at 24,168 MTOPS).
These controls have been constraining our ability to fully and efficiently use our foreign
national employees in development of new products. We also wish to underscore that the
technologies and software potentially eligible for license-free treatment under this
proposed rule are commercial, general purpose technologies that are designed for civil
purposes. Any military specific technologies would remain subject to strict export
control.

    IBM is a member of the Semiconductor Industry Association (SIA) and the
Computer Coalition for Responsible Exports (CCRE) and, as a member, IBM
participated in the development of the extensive comments provided by these
organizations. IBM fully supports the recommendations made by these groups.

IBM appreciates the opportunity to comment on the proposed rule and we look forward to continuing our cooperation with BIS on these issues. Please feel free to contact me if you have questions regarding these comments.

Sincerely,

Vera A. Murray
Director, Export Regulation Office

Intel Government Affairs
1634 I Street, NW
Suite 300
Washington, D.C. 20006

intel.

Sharron Cook   November 24, 2003
Regulatory Policy Division
Office of Exporter Services
Bureau of Industry and Security
U.S. Department of Commerce
14th and Pennsylvania Avenue, N.W.
Washington DC 20230

> Re: Proposed Rule Regarding Computer Technology and Software and Microprocessor
> Technology Eligible for Export or Reexport Under License Exception (68 Fed. Reg.
> 60,891; October 24, 2003)

Dear Ms. Cook:

Intel Corporation appreciates the opportunity to comment on the proposed rule establishing license exception treatment for computer technology and software and for microprocessor technology. Intel is the world's largest chip maker and a leading manufacturer of computer, networking and communications products.

Our views on the proposed rule are aligned with the comments being provided to BIS by both the Semiconductor Industry Association (SIA) and the Computer Coalition for Responsible Exports (CCRE). Key positions supported by Intel include the following:

COMPUTER TECHNOLOGY AND SOFTWARE
- Removing the MTOPS limit for Tier 1 countries.
- Establishing a Tier 3 CTP level of 190K MTOPS for such technology/software.
- Ensuring quick implementation of reforms.

MICROPROCESSOR AND OTHER TECHNOLOGY
- Establishing a CIV license exception for ECCN 3E002 technology with no MTOPS limit for civil end use or users.
- The above "no limit" exception should, at minimum, apply to global intra-company transfers of 3E002 technology. Any CIV limit for third party transfers of such technology should be set at a MTOPS level that is ahead of technology for processors now in production. SIA's identification of a 50K MTOPS limit as a potential differentiator for control of third party transfers is reasonable.
- Implementing CIV capability for semiconductor technology falling under ECCN 3E001. Controls under 3E001 should be further eased by eliminating the 3A001.a.3.c. control.

- Ensuring expeditious implementation of reforms.

Intel-supported justifications for the above positions are provided in the comments from SIA and CCRE. These comments include responses to the specific questions presented in the proposed rule, which are difficult for individual companies to answer without disclosing confidential information.

Thank you for the opportunity to provide Intel's views on the proposed rule.

Sincerely,

David Rose
Director, Export/Import/InfoSec Affairs

Ms. Sharron Cook   November 24, 2003
Senior Export Policy Analyst
Office of Export Services
Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Avenue, NW
Washington, DC 20230

> **Re: Computer Technology and Software, and Microprocessor Technology Eligible for Export or
> Reeexport Under License Exception, 68 Fed. Reg. 60891 (Oct. 24, 2003) (proposed rule)**

Dear Ms. Cook,

On behalf of the Information Technology Industry Council (ITI), I write in support of the comments filed by the Computer Coalition for Responsible Exports (CCRE) on the above-referenced technology regulations proposed by the U.S. Department of Commerce. ITI believes that the proposed rule contains significant improvements upon the current knowledge control system and represents a positive step toward promoting America's technological innovation and global competitiveness. However, ITI agrees with CCRE's recommendation that the final rule include additional adjustments of the MTOPS levels and country groupings in order to account for modern technological developments and national security realities.

ITI represents the top providers of information technology products and services in the United States and is the voice of the high tech community. ITI is a leading advocate of policies that advance U.S. leadership in technology and innovation, open access to new and emerging markets, support e-commerce expansion, and protect consumer choice. As the leading information technology trade association, ITI supports measures that fuel economic growth and job creation in this important sector of the U.S. economy.

With specific regard to export control regulations, ITI believes that updating prevailing MTOPS levels and country groupings for technology and software to reflect technological progress is essential to promoting America's continued leadership in technological innovation and global competitiveness. Such action is necessary under the current performance-based computer export control framework to compensate for its inherent inability to keep pace with rapid changes in technology. Accordingly, ITI agrees with the CCRE that the proposal to expand license exception availability for certain computer technology and software and microprocessor technology is a positive step that will assist the Administration in refocusing export control resources on technologies that represent genuine national security risks.

ITI also supports the Administration's proposal to make computer technology and software eligible for License Exception CTP. In doing so the Administration attempts to address the need to account for technological developments by increasing the MTOPS limits for computer technology and software. However, ITI agrees with the CCRE that just as computer hardware exports to Tier 1 destinations have no MTOPS limit, there should be no MTOPS limit for exports of computer technology and software to these destinations. ITI believes the distinction proposed by the Administration is unnecessary since countries classified as "Tier 1" under License Exception CTP do not pose proliferation or security threats to the United States. Further, ITI agrees that a Tier 3 CTP limit for technology and software exports of at least 190,000 MTOPS is necessary to reflect current technological reality and capabilities. Similarly, while supporting the Administration's decision to make the export of microprocessor technology CIV-eligible, ITI agrees with the CCRE's recommendation that just as microprocessor hardware for civilian end-use is not subject to an MTOPS limit under License Exception CIV, there should be no MTOPS limit for commercial microprocessor technology.

ITI believes that the comments submitted by the CCRE will assist the Administration in evaluating the effectiveness of the proposed regulation and urges their strong consideration. Prompt enactment of the proposed regulation with the suggested adjustments will provide much-needed relief to the industry.

We appreciate the opportunity to express our views on the proposed regulation and look forward to actively collaborating with the Administration on these important matters.

Please do not hesitate to contact us if we can be of further assistance.

Sincerely,

Rhett Dawson
President

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November 24, 2003

Sharron Cook
Regulatory Policy Division
Office of Exporter Services
Bureau of Industry and Security
U.S. Department of Commerce
14th and Pennsylvania Avenue, N.W.
Washington DC 20230

      Re: Comments on Proposed Rule Regarding Computer Technology and
               Software and Microprocessor Technology Eligible for Export or Reexport
               Under License Exception (68 Fed. Reg. 60,891; October 24, 2003)

Dear Ms. Cook:

On behalf of Motorola's Semiconductor Products Sector (SPS), I am pleased to offer the following comments and recommendations regarding the referenced proposed rule.

The referenced rule proposes creation of a License Exception CIV for exports of microprocessor technology up to an as yet undetermined Composite Theoretical Performance (CTP) ceiling. Consistent with the position we took regarding microprocessor exports, we see as positive the effort to focus dual use processor technology controls on end-uses and end-users of concern, rather than performance metrics that are not effective measures of this technology's potential impact on the nation's security. Focusing controls on applications of concern is a more appropriate means to ensure the objectives of controls are being met without impeding commercial activities that pose little or no risk to U.S. national security.

While the License Exception proposal is a positive development, a better solution would be to manage processor technology exports as we now manage exports of the actual processors, i.e., without a CTP ceiling . Thus, the proposed License Exception should be viewed as an interim measure until the U.S. can coordinate and implement a regime for controlling processor technology exports that mirrors the regime in place today for managing processor exports.

We have given considerable thought to the Government's request for a recommended CTP to serve as a ceiling on the use of License Exception CIV for

processor technology exports. It is neither necessary nor appropriate to establish a CTP ceiling on the proposed license exception. [1]

A CTP ceiling is not necessary since, by definition, the license exception is only to be used for exports to civilian applications, i.e., applications recognized as posing little or no risk to national security. Moreover, there should be no concern about transferring dual use processor technology, regardless of the anticipated CTP of the end item. The design technology for commercial processors is not directly applicable to military systems and neither the processors nor their associated design technology are key differentiators for military systems. Rather, the key differentiators are our defense contractors' capabilities to design integrated systems and specialized software tailored to specific military applications.

It also is not appropriate to establish a CTP ceiling on the proposed license exception. As was clear in the discussions regarding processor controls, the CTP metric has not kept pace with advances in technology and does not provide the flexibility to distinguish between legitimate commercial applications and those that present a real national security concern. Moreover, the metric inevitably has the effect of determining which technologies can succeed in the marketplace. Finally, the CTP metric impedes the competitiveness of U.S. industry. Customers are put off by the unpredictable impact export licensing requirements will have on their development and production cycles. Damaging U.S. industry's competitiveness inevitably damages the Defense Department, which increasingly relies on the strength of the commercial semiconductor industry for its access to leading edge technology.

From a practical perspective, we are additionally concerned the effort to establish a new CTP number will involve lengthy debates that will delay finalization of the license exception. Such delays are of particular concern vis-à-vis intra-company technology transfers. Such restrictions prevent U.S. industry from using some of its best talent to do advanced research work. The restrictions also deprive U.S. companies the benefits of synergistic, 24/7 global research and development activities that accelerate technology advances and sustain our technological leadership. Again, export policies that hurt U.S. companies do more to harm U.S. national security than to protect it.

It should also be noted that Government restrictions on intra-company transfers will not improve upon the measures companies take in their own self-interest to protect against diversion of their technology. The Government should recognize that design technology is the life blood of semiconductor manufacturers and the measures companies take to protect against the loss of their technology also serve to protect the national security.

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[1] It should be noted that we have no objection to retaining the existing CTP level for technology exports to end-users/uses of concern as defined in the rules governing general purpose processor exports.

In view of the foregoing, we recommend the Department of Commerce immediately issue a final rule implementing License Exception CIV with no CTP ceiling for transfers (1) within U.S. companies and their subsidiaries located anywhere in the world (other than terrorist or embargoed nations), (2) to suppliers of U.S. companies, such as foundries, and (3) to commercial customers in D1 countries. The direct and indirect benefits of freeing up these transfers (discussed above) surely outweigh any risk to the national security posed by the diversion of this dual use technology.[2]

If the Government establishes a CTP ceiling for the proposed license exception, the ceiling should only apply third party transfers and should set at a level that will not impede the competitiveness of U.S. companies. To compete effectively, companies must have the flexibility to share design technology with their customers and suppliers, such as foundries, not just for processors already in production, but also for next generation processors that have been announced and will soon go into production. Given the rate at which this technology advances, the next generation processor likely will have a CTP twice that of its predecessor. Assuming the most advanced processor on the market now has a CTP of 25,000 MTOPS, the next generation processor can be expected to have a CTP of 50,000 MTOPS. Thus, the CTP ceiling for third party transfers must be set at a level no less than 50,000 MTOPS.

In addition to the formula described above, if the Government establishes any CTP ceiling on the use of the proposed License Exception, we also urge the Government to adopt a formula to permit the CTP levels to increase with advances in technology. While our strong preference is for the License Exception CIV to be implemented with no CTP ceiling for intra-company and customer/supplier technology transfers, we would be willing to work with the Government to craft such regulatory language to implement such a formula.

Sincerely,

R.N. Fielding
Director, Import/Export Compliance
Semiconductor Products Sector
Motorola, Inc.

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[2] The recommendation in respect to intra-company processor technology transfers is analogous to the existing rule that permits intra-company transfers of encryption technology under License Exception ENC. In this connection it should be noted that processor design technology poses significantly less risk to the nation's security than encryption technology. Encryption technology in the wrong hands is an instant threat because it requires little or no additional development to scramble information, thereby thwarting U.S. intelligence and law enforcement efforts.

REGULATIONS AND PROCEDURES TECHNICAL ADVISORY COMMITTEE

24 November 2003

Ms. Sharron Cook
Regulatory Policy Division
Office of Exporter Services
Bureau of Industry and Security
Department of Commerce
14th Street and Pennsylvania Ave., NW
Washington, DC 20230

RE: Proposed Rule: Computer Technology and Software, and Microprocessor
Technology Eligible for Export or Reexport Under License Exception

Dear Ms. Cook:

The RPTAC applauds BIS for issuing the recent proposed rule on computer technology
and software and microprocessor technology (Federal Register, Vol. 68, Number 206,
10/24/03). The proposed rule addresses the critical need to update the MTOPS limit for
computer technology that the RPTAC first requested in its January 28, 2002 and April 4,
2002 letters to Undersecretary Juster. As we noted in our previous letters, the MTOPS
limit was originally designed to capture technology related to "supercomputers". It now
controls technology related to desktop processors. An ENC-type license exception (such
as the RPTAC's License Exception NDA proposal) is still needed to permit the transfer
of technology between U.S. companies and their overseas subsidiaries and foreign
national employees in the United States. In the absence of ENC-type license exception,
the proposed rule will help prevent unacceptable delays in the transfer of technology to
existing development and manufacturing operations in the U.S. and Group B countries.
Delays on the transfer of such technology could significantly increase production costs
and disrupt product development cycles. In addition, the proposal to transfer computer
technology from License Exception TSR to License Exception CTP eliminates the
outdated inconsistencies between hardware, software, and technology country group
restrictions. The RTPAC encourages BIS to issue the final rule as soon as possible.

While the proposed rule is a significant improvement, the RPTAC suggests the final rule
incorporate the following revisions:

- Eliminate MTOPS limit for Tier 1 countries. The CCL (4D001 & 4E001) sets no
  TSR MTOPS limit for computer technology and software for the (22) countries
  that were former member or cooperating countries of CoCom. The proposed rule
  incorporates this provision into License Exception CTP. By contrast, many
  countries in computer Tier 1 that "do not pose proliferation or security threats to
  the United States" [66 Fed. Reg. at 5443]) would still continue to be subject to an
  MTOPS limit of 150K MTOPS, even though there is no MTOPS limit for
  computer hardware to these countries. Since the "Tier 1" countries no longer pose

proliferation or security threats, there should be no MTOPS limit for computer technology and software exports to all "Tier 1" countries. The MTOPS limit should only apply to those countries that continue to present genuine proliferation or security risks to the United States.

- Increase the MTOPS limit for Tier 3 countries from 75K to 190K MTOPS. As we noted in our previous letters, the MTOPS limit for computer technology was originally designed to capture technology related to "supercomputers" and was pegged to the hardware MTOPS limit, currently 190K MTOPS. It is not clear why there has been a change in policy. We believe the harmonization between the hardware and technology limits should be restored.

- Future computer technology and software limits in License Exception CTP should be linked to the hardware limit and be revised in tandem.

- There should be no MTOPS limit for microprocessor technology under License Exception CIV, since the MTOPS limit for microprocessors (except for military end-users/uses in Country Group D:1) was previously removed. In addition, with respect to implementing CIV for semiconductor technology falling under ECCN 3E001, controls under 3E001 should be further revised by eliminating the 3A001.a.3.c control.

With respect to your request for comments concerning proposals regarding computer technology that the Department of Commerce should consider, we suggest you reconsider the RPTAC's May 24, 2001 and August 23, 2001 proposals to Undersecretary Juster concerning a new "ENC-type" License Exception "NDA" for intra-company technology transfers. This is the best long-term solution to the intra-company technology transfer problem.

Finally, we wish to note that the proposed rule's statement that the Department of Commerce "will not accept comments accompanied by a request that part or all of the material be treated confidentially" will severely limit responses from industry to the questions posed in the proposed rule. Much of the information the Department is requesting is of a proprietary nature and will not be shared for competitive reasons unless confidentiality is maintained.

Sincerely,

Keith Melchers
RPTAC Chairperson

Cc: Matthew Borman; Eileen Albanese; Hillary Hess; Lee Ann Carpenter; RPTAC members

November 24, 2003

Sharron Cook
Regulatory Policy Division
Office of Exporter Services
Bureau of Industry and Security
U.S. Department of Commerce
14th and Pennsylvania Avenue, N.W.
Washington DC 20230

      Re: Comments on Proposed Rule Regarding Computer Technology and
               Software and Microprocessor Technology Eligible for Export or Reexport
               Under License Exception (68 Fed. Reg. 60,891; October 24, 2003)

Dear Ms. Cook:

      The Semiconductor Industry Association ("SIA") is pleased to respond to the
Bureau of Industry and Security's ("BIS") October 24, 2003 proposed rule (the
"proposed rule") concerning the export control of semiconductor technology and
computer technology and software. SIA is the leading voice for the U.S. semiconductor
industry and has represented U.S.-based manufacturers since 1977. SIA member
companies comprise approximately 85% of U.S.-based semiconductor production. See
Attachment A.

      These comments have the support of member companies of SIA. The sensitive
and proprietary nature of much of the information requested in the proposed rule limits
the ability of these companies to respond individually to this rulemaking.

General Comments

      SIA believes that the objective of the proposed rule -- expanded license-free
treatment for exports of certain general purpose microprocessor and computer technology
and software -- is constructive, forward-looking and consistent with a more focused and
reasonable export control system. These are inherently civilian technologies that form
the basis of today's information-based economy. They are not military in character and
by themselves can present no immediate national security risk. These types of
technologies and related capabilities are readily available throughout the world and
maintaining outdated and unjustified export license requirements on them serves only to

impinge on the competitiveness of U.S. semiconductor and computer companies, while offering no discernable national security benefit.

While SIA believes that the proposed rule can be improved and that, as a general matter, the MTOPS metric, and similar performance metrics, should be completely abandoned for export control purposes, the proposed rule does take some positive steps and could be the basis for a more effective control regime.

Proposal on Microprocessor Technology

While the proposed rule would maintain under ECCN 3E002 the outdated 530 MTOPS Wassenaar control level for microprocessor technology, it would implement CIV license exception eligibility for this technology. This change would allow semiconductor companies to export certain microprocessor technology to Country Group D:1 destinations or share such technology with nationals from Country Group D:1 employed in the United States -- in both cases without an export license -- if the recipients and end-uses are civilian. Under the proposed rule, this license exception eligibility would be capped at a yet-to-be-determined MTOPS limit.

SIA has been urging reform to semiconductor technology controls for many years and has provided recommendations to the Commerce Department on various occasions.[1] While SIA agrees with the basic objectives of the proposed rule, it believes that a more fundamental change is needed in the export control treatment of technology for general purpose microprocessors. Consistent with the President's May 2002 decision that MTOPS-based controls on general purpose microprocessors and related devices are "outmoded" and lack "common sense," SIA believes that the technology relating to these devices should also no longer be subjected to MTOPS controls.

The technology controlled by ECCN 3E002 is for general purpose microprocessors, DSPs, and microcontrollers designed and intended for broad-based civilian applications, such as standard computing, telecommunications, and video games. This technology is inherently civilian and by itself provides no military-specific value. To the contrary, it relates to the production of the most basic buildings blocks of the global information infrastructure.

The semiconductor business is international and U.S. chipmakers must be able to pursue globalized development and production, as well as employ the best talent in the United States, if they are to remain industry leaders. Outdated U.S. controls on this

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[1] See, for instance, January 7, 2003 letter from SIA to Bernard Kritzer regarding 2003 Wassenaar negotiations; February 21, 2002 letter from SIA to Tonya Mottley regarding 2002 Wassenaar negotiations; and May 7, 2001 letter from SIA to Matthew Borman regarding classification of semiconductor process technology.

technology, however, have a disruptive and costly impact on these activities. Export restrictions and conditions on intra-company technology transfers, for instance, are increasingly frustrating the product development efforts of SIA members. Complications such as time delays, special license conditions, and employment disincentives for foreign nationals are impeding U.S. semiconductor companies' ability to perform in the most efficient and competitive manner. At the same time, the types of technology controlled under ECCN 3E002 are widely available from non-U.S. sources and most other countries impose minimal export restrictions on such transfers.

Consequently, SIA believes that the most appropriate regulatory change is to equate controls on general purpose microprocessor technology with those on general purpose devices, which would entail the removal of MTOPS controls under ECCN 3E002. SIA recognizes that such a change likely would require agreement from the Wassenaar Arrangement. Consistent with previous SIA proposals, SIA urges the U.S. government to pursue this goal. Achieving this change in the Wassenaar Arrangement, however, would be time-consuming and likely would not result in an actual regulatory change in the United States for at least a year. In the near-term, therefore, SIA supports the CIV license exception approach contemplated in the proposed rule, but believes that there should be no MTOPS limit attached to the exception.

Imposing a CIV MTOPS limit under 3E002 perpetuates the MTOPS treadmill discarded by the President in his decision on semiconductor devices. As was the case with the CIV MTOPS limit for devices, the approach to setting a new CIV MTOPS threshold for microprocessor technology likely will be based on prevailing commercial technology levels, rather than any meaningful national security considerations. This approach results in an arbitrary control regime that is not reflective of true security concerns, but instead relies on an endless process of trying to accommodate rapidly changing commercial semiconductor technology advancements. As was the case with microprocessors, increasingly frequent adjustments to the 3E002 CIV MTOPS threshold would be necessary, requiring substantial time and resources unconnected to national security concerns.

In short, while the proposed rule could represent a step forward in modernizing microprocessor technology export controls, SIA believes that reinventing the MTOPS treadmill is the wrong approach and contrary to the President's decision on the uselessness of MTOPS controls for semiconductor devices. SIA therefore recommends that license exception CIV be extended to ECCN 3E002, but without an MTOPS limit. This approach would establish a logical balance between controls on general purpose microprocessors and their related technology.

Proposal on Computer Technology and Software

SIA believes the proposed rule's expanded license exception eligibility for computer technology and software represents an important and necessary change. As

with general purpose microprocessor technology, the technology and software underlying civilian-based computer systems support the global information infrastructure, provide no special or unique military value and are widely available on a global basis.

SIA fully supports the Computer Coalition for Responsible Exports' recommendations on the proposed rule. In particular, SIA supports the elimination of MTOPS control limits for all "Tier 1" countries and the establishment of a "Tier 3" CTP limit for technology and software of 190,000 MTOPS.

3E001 Controls on Semiconductor Technology

While the proposed rule focuses on important issues raised by outdated controls on microprocessor technology under ECCN 3E002, it fails to address similar problems under ECCN 3E001. While 3E002 technology controls are based solely on a device's MTOPS performance, 3E001 technology controls are tied to a variety of other hardware performance parameters. Therefore, even if 3E002 MTOPS controls are eliminated or substantially raised, very low level technology related to some general purpose semiconductor devices would continue to be subject to certain license requirements under ECCN 3E001.

For instance, technology related to microprocessors, DSPs and related devices that meet the 150 Mbyte/s transfer rate under ECCN 3A001.a.3.c. is controlled under ECCN 3E001 and subject to license requirements to China, among other countries. The ECCN 3A001.a.3.c. control has long been outmoded. Processors with a 1 Gbyte/s transfer rate are currently entering the commercial market. One consequence of the continued presence of this outmoded control is that some devices intended to be decontrolled by the President's 2002 decision on microprocessors continue to be controlled by this ECCN. Similar examples exist of out-dated controls on semiconductor devices within Category 3A that trigger corresponding 3E001 technology controls.

BIS should recognize that other changes to semiconductor hardware and technology controls are also necessary in order to avoid the types of complications and unintended problems that the proposed rule seeks to minimize. Consequently, to avoid uneven licensing treatment among a variety of general purpose semiconductor technologies, BIS should implement CIV eligibility for technology controlled under 3E001. Failure to do so could result in competitive inequities within the semiconductor industry, with some general purpose chip technologies coming under license exception and others remaining subject to license requirements. In addition, consistent with the U.S. position before the Wassenaar Arrangement, SIA recommends that BIS eliminate ECCN 3A001.a.3.c.

Responses to Specific Questions

Provided below are SIA's responses to the specific questions posed in the proposed rule.

1. What impact would the proposed revision of computer technology and software controls have on your company?

This question can best be addressed by the computer industry.

2. Is there another proposal regarding computer technology and software, and microprocessor technology controls that you would like Commerce to consider? If so, describe your proposal in detail and please give technical and other justifications for your proposal.

As explained above, SIA believes that MTOPS-based controls on microprocessor technology should be eliminated. Thus, until such a change can be achieved in the Wassenaar Arrangement, CIV license exception authority for ECCN 3E002 should be implemented without any MTOPS limit. Corresponding CIV eligibility for 3E001 technology should also be provided.

3. What is the highest CTP level for microprocessors currently being manufactured by your company?

SIA understands that the highest CTP level for U.S. semiconductors currently under production is approximately 25,000 MTOPS (IBM PowerPC970 at 2 GHz). This level is expected to increase substantially over the next year.

4. What should be the CTP MTOPS limitation for microprocessor technology under the proposed License Exception CIV? Please provide detailed technical and other justification for your proposal.

As explained above, SIA believes there should be no MTOPS limit attached to the CIV license exception under ECCN 3E002. There is no apparent national security rationale for why this general purpose microprocessor technology should be licensable. It relates to inherently civilian components that provide no unique military value. This technology alone does not translate into strategic military advantage.

Furthermore, establishing an MTOPS limit for license exception eligibility could create uneven licensing treatment for competing clusters of U.S. semiconductor technologies. Such an outcome is in the nature of performance-based controls and can significantly disadvantage selected U.S. companies. Moreover, this approach, as witnessed with semiconductor devices, is prone to rapid obsolescence and likely to require constant readjustment.

Given that current product development work relates to devices to be introduced 3 or 4 years hence, assessing the immediate impact of a given MTOPS limit involves looking well beyond current processor performance levels. SIA estimates that processors in production today involve technologies of upwards of 30,000 MTOPS. Development work currently underway on future general purpose devices is estimated to involve technologies that are several multiples higher than 30,000 MTOPS. The graph at Attachment B demonstrates where general purpose processor performance is projected to fall in the years ahead.

To compete in commercial markets, companies must be able to deploy their resources and technology throughout their internal facilities on a global basis. Because semiconductor companies closely guard their technology, transfers within a company pose far less risk of diversion than transfers to third parties. Hence, transfers within a company should be eligible for CIV without any MTOPS limit.

A possible point of differentiation for microprocessor technology transferred to third parties would be to capture the leading edge technology that is typically ahead of what is in production or about to go into production. Setting the threshold at 50,000 MTOPS would still capture such leading edge microprocessor technology.

Despite this possible point of differentiation, the inherent difficulties and unpredictability associated with selecting and maintaining an MTOPS limit, in addition to the more fundamental problem that MTOPS limits would not appear to reflect specific national security concerns, compel SIA to refrain from making a recommendation for an MTOPS limit for 3E002.

5. *How do other countries license the transfer of computer technology and software, and microprocessor technology? Have there been instances where your company has been placed at a competitive disadvantage based on current U.S. license requirements?*

SIA does not have detailed knowledge of the specific export licensing policies and practices of foreign countries. In general, however, SIA is aware that the export restrictions imposed on semiconductor technology by other Wassenaar member countries are typically very limited, including for transfers to countries such as China. Licenses, if required, tend to be issued in a bulk format and contain few limitations.

The disadvantages to U.S. semiconductor companies stemming from the current 3E002 control will continue to grow if the control is not substantially changed. U.S. chipmakers are under growing pressure to globalize their operations and engage in technology development in an international setting. In addition, ready access to highly trained foreign nationals in the United States remains important to U.S. chipmakers.

SIA believes that the types of changes contained in the proposed rule would begin to bring the United States into closer conformity with other Wassenaar members and limit the detrimental effect on U.S. competitiveness.

6. What are your predictions for the CTP level of microprocessors that will be in production 3 and 5 years from now? On what basis did you make your predictions?

In Attachment B, SIA has attempted to make a general approximation of microprocessor CTP growth using historical CTP figures for individual microprocessors and applying Moore's Law for future years. While these projections are generally illustrative of the anticipated growth in general purpose microprocessor performance, actual CTP calculations could vary, including coming out at considerably higher levels.

As indicated in Attachment B, SIA approximates that the CTP level of microprocessors in production in three, five and seven years will be, respectively, 250,000, 600,000 and 1,000,000 MTOPS.

7. What percentage of your research and development is accomplished: (1) Outside of the United States; and (2) with the assistance of foreign nationals within the United States?

These figures of course will vary between individual semiconductor companies. In general, however, the proportion of company R&D work performed outside the United States is growing due to changing international markets and business trends. While U.S. chipmakers tend to maintain a substantial amount of their R&D activities -- particular the most cutting-edge -- in the United States, they are increasingly pursuing such work on an international basis.

Foreign nationals performing R&D work for U.S. chipmakers in the United States continues to generate high value. The U.S. semiconductor industry depends on access to the brightest and best trained scientists and engineers, irrespective of nationality. SIA expects foreign national employees to continue to represent an important segment of the U.S. semiconductor technology workforce for many years to come.

8. Is there an alternative method or parameter for controlling exports of computers and microprocessors and the technology and software therefore that industry believes would be more in-line with the way industry produces, develops, or measures these items?

As explained above, SIA believes performance-based controls utilizing metrics such as MTOPS are unsuited to general purpose and rapidly changing technologies such as semiconductors. The President's decisive action to eliminate MTOPS controls on semiconductor devices underscores SIA's position. Certain specialized chips and their underlying technology may continue to be worthy of control due to unique attributes or applications. General purpose, high-volume semiconductors and related technology, however, simply do not merit export restriction as a general matter.

Global Intra-Company Transfers of Technology

Lastly, the various technology and market trends that have prompted the reforms contained in the proposed rule have also led the government to consider a new approach to regulating the transfer of controlled technology within a company's global operations. SIA supports this effort to pursue a more suitable method of controlling intra-company technology transfers. The operations of semiconductor, computer and other U.S. technology companies are increasingly globalized, and the present technology control regime will not be able to effectively contend with the expanding internationalization of research, development, and manufacturing.
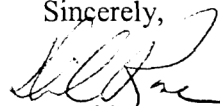
As the government develops this new approach, SIA urges it to pursue an effective and meaningful change with respect to knowledge controls that offers real improvement over the current control scheme. SIA believes this should include a form of license exception eligibility for transfers of designated technologies within a company's internal global operations. Lesser reforms that maintain variants on current licensing requirements will provide limited value and likely fail to significantly address the growing collision between globalized business operations and geographically-based export controls.

*   *   *

SIA would like to emphasize the importance of implementing a final rule regarding the issues discussed in these comments as expeditiously as possible.

SIA appreciates the opportunity to comment on the proposed rule and looks forward to continuing its cooperation with BIS on these issues. Please feel free to contact the undersigned if you have questions regarding these comments.

Sincerely,

David Rose
Chairman
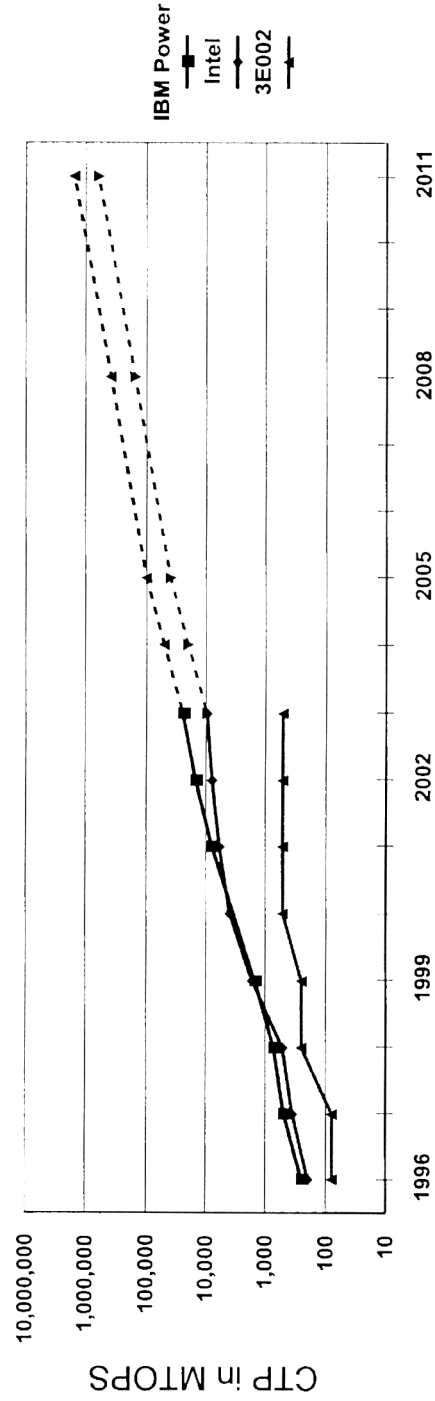SIA Export Controls Committee

Attachments

Attachment A

Member companies of the Semiconductor Industry Association include:

Advanced Micro Devices	Agere Systems	Altera
AMI Semiconductor	Analog Devices	Atheros Communications
Broadcom	Cirrus Logic	Conexant Systems
Cypress Semiconductor	Eastman Kodak	Fairchild Semiconductor
IBM	Integrated Device Technology	Intel Corporation
International Rectifier	Intersil	Lansdale Semiconductor
LSI Logic	Micron Technology	Motorola
National Semiconductor	NVIDIA	ON Semiconductor
Pixelworks	PMC-Sierra	QP Semiconductor
QuickLogic	Rambus Inc.	Rochester Electronics
Silicon Storage Technology	Texas Instruments	Transmeta Corporation
Xilinx	ZiLOG	Zoran Corporation

Microprocessor CTP: Actual and Projected Using Moore's Law

Legend: IBM Power ■ · Intel ◆ · 3E002 ▲

Y-axis: CTP in MTOPS (10; 100; 1,000; 10,000; 100,000; 1,000,000; 10,000,000)
X-axis: 1996, 1999, 2002, 2005, 2008, 2011

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
■ IBM Power	250	500	750	1,500	4,000	8,000	15,000	24,170								
◆ Intel	200	350	525	1,710		6,135	8,160	9,750								
▲ 3E002	80	80	260	260	530	530	530	530								
▲								24,170	50,000	100,000			400,000			1,600,000
▶								9,750	20,000	40,000			160,000			640,000

Post 2003 data points are purely projection based on a conservative assumption about the continuation of Moore's law. In a July 2003 Defense Horizons publication, representatives from the Naval Research Lab project a slowing after 2005 to a doubling of transistors every 3 years. Historically CTP doubles at about twice this rate, so beyond 2005, we projected these numbers based on a concurrent slowing to a doubling every 18 mos. from the historical doubling every 12 mos.

Actual CTP figures provided here for 1996 to 2003 are based on the highest CTP microprocessor in production for the identified manufacturer in the respective year.

unisys

November 24, 2003

Sharron Cook
Senior Export Policy Analyst
Office of Export Services
Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Avenue, NW
Washington, DC 20230

**Re: Computer Technology and Software, and Microprocessor Technology
Eligible for Export or Reeexport Under License Exception,
68 Fed. Reg. 60891 (Oct. 24, 2003) (proposed rule)**

Dear Ms. Cook:

On behalf of the Unisys Corporation, I am writing to comment on the above-referenced technology regulations proposed by the U.S. Department of Commerce. Unisys believes that the proposed rule embodies significant improvements to the current system for controlling the export of sensitive computer technology. Therefore, we recommend that proposed changes to Section 740.7 and all conforming changes be implemented as soon as possible as a final regulation.

While Unisys applauds these proposed changes as a positive step toward promoting America's technological innovation and global competitiveness while at the same time protecting national security, we recommend that the BIS consider implementing the following further improvements, which would more accurately reflect technology developments and national security realities.

MTOPS Levels for Tier 1 Countries

We do not understand the rationale for imposing a distinction with respect to technology controls between what we understand are the former members of COCOM (*i.e.*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom) and the other countries in Tier 1. Since all these countries are eligible to receive computer hardware without any MTOPS limit, a licensing threshold of 150,000 MTOPS for technology limit for these countries does not appear to be founded on either national security, market or technology reality.

The disconnect between the treatment accorded the different groups of countries is especially problematic because the disadvantaged countries which include important U.S. trading partners like Argentina, Brazil, Chile, Mexico, and Singapore do not (as far as we understand) pose proliferation or security threats to the United States. In fact, some of these countries are members of the multilateral regimes aimed at controlling the proliferation of weapons of mass destruction.

Therefore, Unisys recommends that all countries in Tier 1 have no MTOPS computer technology limit.

MTOPS Level for Tier 3 Countries

Similarly, the proposed regulation sets a licensing threshold of 75,000 MTOPS for exports of computer technology to Tier 3 countries. Since computer hardware up to 190,000 MTOPS can be exported to Tier 3 countries without a license, we are concerned that the 75,000 MTOPS limit on technology transfers will not accomplish any significant security objectives. Therefore, we urge the Administration to set the Tier 3 MTOPS limit for computer technology at 190,000 MTOPS.

Additional Questions

With respect to the additional questions posed by the Commerce Department, we have the following comments.

1. Is there another proposal regarding computer technology and software …controls you would like Commerce to consider?

    Unisys believes that the Administration and industry should work together to develop a license exception for transfers of controlled technology within the corporate enterprise. Companies could avail themselves of this license exception if they met certain security and safeguard requirements that assured controlled technology would not be diverted to unauthorized uses. The scope of these safeguards should be developed cooperatively by industry and the Administration.

2. Have there been instances where your company has been placed at a competitive disadvantage based on current US export controls?

    Unisys cannot identify a specific example of when we were disadvantaged solely because of US export controls. However, export licensing requirements are an issue, especially when it comes to system upgrades. Customers want assurances that they will be able to move up to a more capable system if their business needs expand. Since no company can absolutely guarantee that an export license for an upgrade will be approved, a license requirement can act as a disincentive to closing the deal.

Sincerely,

Kevin Clark
VP Unisys Logistics Services
Supply Chain Operations
(215) 986-3029

Ms. Sharron Cook
Regulatory Policy Division,
Office of Exporter Services
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Avenue, NW,
PO Box 273, Room 2705
Washington, DC 20230

Sun *microsystems*

Dear Ms. Cook:

Sun Microsystems welcomes the opportunity to comment on the Proposed Rule
regarding Computer Technology and Software, and Microprocessor Technology
Eligible for Export or Reexport Under License Exception, 68 Fed. Reg. 60891
(Oct. 24, 2003), Docket No. 031016261-3261-01.

Sun is a major global producer of networked computer systems, software and
microprocessors. It is important to note that the need to transfer technology in
these categories, both within the company and to key business partners, is critical
to Sun in an extremely competitive multinational environment.

Export controls on technology and software affect not only transfers to third parties
overseas, but also transfers to some non-US national employees in the US, to US
subsidiaries overseas, and to non-US contractors and consultants. The US "deemed
export" theory can place restrictions on access to critical engineering and technical
talent, and other aspects of controls in their current form can create roadblocks to
the collaborative exchange of technology within the global operations of US
companies. As a result, changes in export controls specified in this Proposed Rule
can have substantial and material impact on Sun's ability to maintain a competitive
technological advantage.

As a general matter, Sun views the Proposed Rule as a positive step. The following
commentary deals with the particulars of the proposals on computer technology,
software and microprocessor technology, and responds to questions raised by BIS
in the notice.

I.   COMPUTER TECHNOLOGY AND SOFTWARE CONTROLS

Sun agrees with other computer companies that performance-based computer
export controls are inherently flawed because they cannot keep pace with rapid
changes in technology. However, while the US retains CTP-based controls, it is
critical that control thresholds are regularly reexamined and updated to reflect the
evolution of commercial technology. The Proposed Rule represents a long-overdue
step in this direction.

Sun supports the proposal to make computer technology and software eligible for License Exception CTP. This represents an improvement over the current situation in that it clearly de-links control of this technology from the Cold War country groupings that typically characterize TSR controls. Moreover, the general requirements of this authorization have been built into company internal control programs for some time.

However, despite a more accurate geographic focus on specific strategic concerns for computer system technology, the Proposed Rule did not extend the Tier groupings that exist for hardware to technology and software under CTP. Specifically, Rule seeks to preserve unlimited CTP for 22 countries (*i.e.*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), but sets a 150,000 MTOPS limit for the remaining "Tier I" countries.

It has long been recognized that the former Tier II countries subject to the 150,000 MTOPS limit are not proliferation or security threats to the US, and hence have no CTP limit in terms of computer hardware exports. Moreover, this group represents major US trading partners and their nationals. In our view, there is no technical or strategic justification for imposing a cap on software and technology transfers to these destinations in the absence of a similar limit on hardware controls.

For Tier III, the Rule would impose a CTP limit of 75,000 MTOPS. We urge that this limit be harmonized with the current hardware limit of 190,000, and be kept consistent with any future changes. Allowing technology and software transfers up to the hardware limit would not allow end-users in these countries access to computers that they could not already obtain via hardware sales. It could, however, simplify enforcement and improve the ability of companies to transfer technology and software to non-US national employees within the US and to US subsidiaries overseas.

Finally, we strongly urge that the technology and software thresholds (as well those on hardware) be reviewed on an annual basis until such time as performance metrics are eliminated.

II.   MICROPROCESSOR TECHNOLOGY CONTROLS

The Proposed Rule would make microprocessor technology below a yet-to-be-specified MTOPS level eligible for License Exception CIV. Sun joins the industry in supporting this measure.

However, we also believe that there should be no MTOPS limit for microprocessor technology under CIV, now that the MTOPS limits on the chips themselves have been removed. While controls that would make integrated circuits uniquely useful in a military environment are necessary, these ECCN 3E002 controls relate to the development and production of general-purpose semiconductors intended for broad-based civilian applications. Thresholds based on abstract throughput measures such as CTP no longer serve any strategic purpose in this context, and greatly complicate the critical transfer of design technology within US companies.

As a temporary expedient, the MTOPS limit for microprocessor technology under License Exception CIV should be no lower than the CTP of the fastest commodity microprocessor currently in the marketplace at the time the rule is implemented. This has been the historical baseline for this level, but in recent years the control theshold has not been updated to reflect advances in technology.

III.   ADDITIONAL QUESTIONS POSED BY COMMERCE DEPARTMENT

1. What impact would the proposed revision of computer technology and software controls have on your company?

While of itself not a solution to problems arising from knowledge controls, implementation of the Proposed Rule will provide critical short-term relief in certain focused circumstances and should be accomplished as soon as possible.

The major issue that Sun faces with regard to controls in these ECCN categories is transfer of technology relevant to Sun's own standard product line to its own employees in the US and abroad, and to key business partners who provide development support services. As both the control threshold of 28,000 MTOPS and the TSR eligibility threshold are many years behind Sun's current normal product offerings, an increasingly large segment of Sun's employee population potentially falls under validated authorization requirements due in part to these controls. Implementation of the Proposed Rule will relieve some of this burden.

This problem is exacerbated by the need to provide access to controlled technologies to certain classes of non-US employees and support contractors on a "contingency" basis. A fundamental feature of research and development activity is that a precise roadmap of technology needed for development cannot be predicted far into the future. In addition, R&D activities sometimes occur either prior to or without an item being turned into an actual product, meaning that a CTP value cannot even be calculated in principle.

As a result, if it is even possible that a given employee or critical consultant need access to a particular category of technology now or in the future, a license must be very broad in scope to accommodate every possible contingency, and it must be in place now. The delays, uncertainty and conditioning resulting from a validated license application mean that critical projects could be disrupted unless continuity of access to needed technology by key employees is assured.

The changes in License Exception CTP and CIV outlined in the Proposed Rule cannot solve this fundamental problem by themselves. Even if performance-based thresholds were substantially higher than those suggested, the advances in performance would mean that at some time in the near future, the practice of "contingency" licensing would have to begin again.

2. **Is there another proposal regarding computer technology and software, and microprocessor technology controls that you would like Commerce to consider? If so, describe your proposal in detail and please give technical or other justifications for your proposal.**

Sun supports the development of an ENC-type license exception for intracompany sharing of knowledge that: (a) permits U.S. IT companies to transfer controlled knowledge to their foreign subsidiaries; and (b) permits U.S. IT companies to transfer controlled knowledge to their lawfully admitted foreign national employees working within the United States.

Such a license exception would commit eligible US exporters to transfer controlled technology within their own organizations for their own use in return for a commitment to implement fundamental safeguards on the internal movement of technology.

We believe that such an approach would provide the flexibility needed to efficiently and predictably manage technology within US enterprises, and at the same time address national security concerns. The creation and substantial track record of License Exception ENC provides important validation of this approach in a strategic class of technology.

3. **What is the highest CTP level for microprocessors currently being manufactured by your company?**

Sun's UltraSparc III microprocessor is rated at 2700 MTOPS.

4. **What should be the CTP MTOPS limitation for microprocessor technology under the proposed License Exception CIV? Please provide detailed technical and other justification for your proposal.**

The President's 2002 decision to eliminate MTOPS controls on microcircuit devices demonstrated that these items do not present a national security concern worthy of continued control. Consistent with this determination, the technology for the development and production of these general-purpose devices should be treated similarly.

As a temporary measure, CIV eligibility should be set to the level of prevailing production at the time of regulatory implementation. As long as controls continue to exist on dual use microprocessor technology, the principle used to set the current level continues to be logical and useful. As fabrication lags design work by 3 years or more, this approach would only include technology that has already been under development for a significant period.

If the level were implemented today using this principle, it would have to be at least 25,000 MTOPS, as chips at that level are already on the market. If implementation (i.e. publication in the Federal Register) could be accomplished

next year, this level could be 50,000 MTOPS or more. The appropriate level is predictable; BIS must base its final recommendation on proprietary (and highly sensitive) roadmap data provided by companies directly.

5. **How do other countries license the transfer of computer technology and software, microprocessor technology? Have there been instances where your company has been placed at a competitive disadvantage based on current U.S. license requirements?**

As Sun sources technology in these categories primarily from the US, we do not have a reliable sampling of authorization structures, approval policies, and enforcement of these controls outside of the US. All of these issues, in addition to nominal controls, must be compared in order to frame a reliable comparison of national controls. However, this information should be readily available to the U.S. Government through the Wassenaar Arrangement and from individual member governments.

We would note that despite other national controls on intangible technology, the concept of "deemed" export and reexport (that is, the principle of licensing requirements based solely on the home country and residency status of an individual) to our knowledge is unique to the US.

Current deemed export and reexport requirements have become a major burden on Sun (and other information technology companies), in terms of management complexity, arbitrary conditioning, and sheer volume of individual license application and re-applications.

These requirements impose administrative costs, require the redesign of data access and other internal procedures and structures, and cause the intangible disadvantages of uncertainty and delay in the execution of key technical projects. As these requirements are well known, it is our belief that they are a negative factor in Sun's ability to attract the best engineering and technical talent at its worldwide sites.

6. **What are your predictions for the CTP level of microprocessors that will be in production 3 and 5 years from now? On what basis did you make your predictions?**

Sun has already provided the Administration with this data. Such proprietary company data cannot be placed on the public record.

7. **What percentage of your research and development is accomplished: (i) outside the United States; and (ii) with the assistance of foreign nationals within the United States?**

Sun has already made similar data available to the Administration in relation to technology subject to validated authorizations, both within and outside the US.

We would note that a "percentage" estimate of such activity, even if it were possible, would reveal little in terms of the competitive need to employ non-US nationals in research and development activities in key projects.

In some circumstances, non-US nationals bring valuable experience to Sun projects that they have recently acquired in post-graduate education, primarily in the US. In other circumstances, they assist in the speedy development and test of products and product features originating in the US, greatly accelerating time to market.

In either case, their activities are integrated into Sun's operations and are an important factor in our ability to compete.

8. **Is there an alternative method or parameter for controlling exports of computers and microprocessors and the technology and software therefore that industry believes would be more in-line with the way industry produces, develops, or measures these items.**

Sun fully supports the position of the Computer Coalition for Responsible Exports that performance-based export controls on dual-use computer systems are ineffective, irrelevant, and need to be eliminated.

CCRE has pointed out that a more effective and relevant strategy to protect national security and promote U.S. technological leadership needs to include the following key elements:
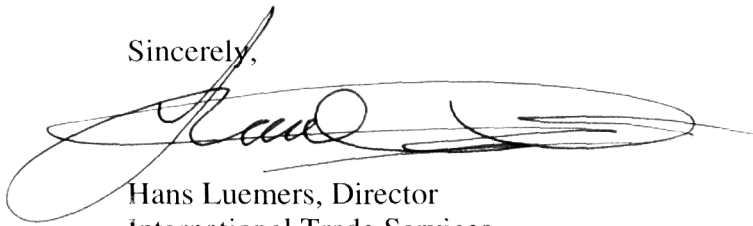
- continued embargoes on exports to "rogue states," including Iran, Cuba, Libya, North Korea, Sudan, and Syria;

- continued application of ITAR controls on computers specially designed for military applications;

- more effective safeguards for classified national security application software;

- U.S. and multilateral controls focused on the identification of dangerous end-users and the prevention of diversion to proliferation activities; and

- a forward-looking technology strategy to ensure that the U.S. military "runs faster" than its potential adversaries.

In closing, Sun Microsystems believes that the Proposed Rule is an important and needed action to relieve existing problems arising from implementation of knowledge controls in the US IT industry. However, in the longer term, a new approach is needed.

The US has successfully maintained a dominant position in key aspects of information technology and microprocessor design despite serious threats over the years from foreign competitors. This dominance has been an important resource for the US military, and needs to be maintained. To the extent that the current control structure impedes US IT companies' ability to compete, it promises long term harm to national security.

In a changing technological environment, the marginal control benefits resulting from Cold-War era controls on internal transfers within US companies could develop into a major competitive issue in the near future. The tools exist for developing an approach that far better balances national security and competitive impacts.

Sincerely,

Hans Luemers, Director
International Trade Services,
Sun Microsystems