



Center for Nonproliferation Studies  
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## **STRENGTHENING CHINA'S EXPORT CONTROL SYSTEM\***

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### **EXECUTIVE SUMMARY**

Over the last decade, China has developed a nascent domestic export control system. Regulations governing exports of nuclear and nuclear dual-use, chemical, missile, and conventional weapons and related technologies are now in place. While these positive developments are encouraging, gaps remain between China's export control system and existing multilateral export control regimes, which Beijing has mostly refused to join. The Chinese government's capacity and willingness to implement and enforce its regulations will be a critical factor determining the effectiveness of Chinese export controls.

Several aspects of China's export control system could be improved to enhance its overall effectiveness:

- Fuller participation and adherence to international nonproliferation export control regimes
- Further development of the legal framework for export controls (and in particular the promulgation of open and comprehensive control lists)
- Clearer bureaucratic processes and division of labor, including inter-agency review procedures
- Export license application, review, and approval procedures
- Enforcement, customs inspections, and punitive measures
- Pre-license checks and post-shipment verification systems
- Infrastructure development, personnel training, and education efforts

The United States should encourage and assist China in efforts to strengthen its export control regulations. The long term U.S. objective should be to harmonize China's system with existing multilateral export control regimes. In the short-run, the U.S. government should find ways to enhance the Chinese government's ability to implement its existing export control regulations.

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Areas where cooperation between the United States and China might be productive include:

- Shaping China's perspectives on nonproliferation and encouraging China to join multilateral export control regimes by supporting training programs and engaging in dialogue with Chinese government officials and experts
- Providing technical advice on developing a better legal framework in China for export controls
- Offering personnel training and technical assistance in improving China's export control infrastructure
- Encouraging greater government-business cooperation on export controls by supporting training workshops and development of incentives for businesses to comply with export regulations
- Offering technical advice on inter-agency coordination procedures for export controls
- Comparing the U.S. and Chinese export control systems, with an eye toward identifying common problems and "best practices" that could be adopted by both sides
- Developing benchmarks for assessing the effectiveness of Chinese export controls, including a tracking system for export licenses
- Helping China to prioritize proliferation risks and focus enforcement efforts on high-priority items
- Training in use of open-source information to evaluate potential end users (possibly in cooperation with the IAEA)
- Organizing training workshops for Chinese customs officials and border guards to improve their ability to detect smuggled nuclear materials and to identify problems with export licenses. This might involve providing both training and detection equipment.

Nonproliferation is a global challenge, and requires global efforts. A more effective Chinese export control system is in the interest of both China and the United States. Political obstacles have inhibited government-to-government cooperation in the past, but the post-September 11th security environment and recent improvements in bilateral relations have provided an opportunity for new initiatives in fighting the proliferation of weapons of mass destruction.

## INTRODUCTION

Over the past decade, the People's Republic of China (PRC) has initiated and gradually consolidated a domestic export control system. Along with its increasingly pro-active participation in international arms control and nonproliferation organizations and greater commitments to comply with international treaty provisions, China's domestic export control regulations and decrees contribute to international efforts to stem, arrest, and prevent the proliferation of weapons of mass destruction (WMD) and their delivery systems. While these positive developments are encouraging, gaps remain between the coverage of China's export control system and that maintained by existing multilateral export control regimes, which Beijing has mostly refused to join. In significant ways, the Chinese government's capacity and willingness to implement and enforce its regulations will be a critical factor in determining the effectiveness of Chinese export controls.

Serious problems remain and continue to be an irritant in Sino-U.S. relations. Beijing differs from the United States in its perspectives on arms control and nonproliferation, and tends to interpret its commitments narrowly. There have been continuing controversies over Chinese transfers of nuclear, chemical, and missile components and technologies to countries of proliferation concern. Discrepancies between Beijing's policy declarations and its actual practices have presented successive U.S. administrations with significant challenges. Shaping Chinese perspectives on nonproliferation and encouraging resource commitments in a time marked by the enormous tasks of managing the transition to WTO membership, the decentralization and diversification of export-oriented companies, trade in dual-use technology, and increasing globalization will be critical factors in ensuring the effectiveness and success of China's export controls.

Closing the gap between the coverage of China's export control system and the standards of existing multilateral export control regimes will be a major challenge in the coming years. The U.S. government must continue efforts to shape Beijing's perspectives on nonproliferation by engaging China in strategic dialogue. At a more technical level, the real test is the extent to which export control regulations are implemented and enforced. Effective implementation will depend on the resources China's central government is willing to put into improving and strengthening its export control infrastructure through personnel training, dissemination of export control regulations, corporate compliance education, interagency review and approval processes streamlining, and the establishment of a viable post-shipment end user/use verification system. The United States could play an important role in facilitating the accomplishment of these goals, with implementation and capacity building as the key short-term targets.

## AN EVOLVING CHINESE EXPORT CONTROL SYSTEM<sup>1</sup>

In the 1980s, China emerged as one of the leading suppliers of arms and dual-use technologies. Towards the end of the 1980s, revelations of Chinese nuclear and missile transfers to countries in the Middle East, the Persian Gulf and South Asia raised serious proliferation concerns

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<sup>1</sup> This section draws on Jing-dong Yuan, "The Evolution of Chinese Nonproliferation Policy since the end of the Cold War: Progress, Problems and Prospects," *Journal of Contemporary China* 11:31 (May 2002), pp. 209-233.

and were a contributing factor in the U.S. “China threat” debate.<sup>2</sup> Among the controversial Chinese arms transfers were the sale of the Dong Feng 3 (CSS-2) intermediate-range ballistic missiles to Saudi Arabia, the sale of HY-2 (*Silkworm*) anti-ship missiles to Iran, the nuclear reactor deal with Algeria, and missile-related transfers to Pakistan.

Since the end of the Cold War, Beijing has made gradual yet significant progress in its nonproliferation policy, specifically in three key areas:

- Accession to major international arms control and nonproliferation treaties and conventions;
- Bilateral arrangements with the United States pledging Chinese commitment to missile nonproliferation; and
- Promulgation of domestic export control regulations.

An important indicator of China’s acceptance of international nonproliferation norms can be found in its participation in major international treaties and conventions (see Table 1). Since the early 1990s, China has joined the NPT (1992), signed (1993) and ratified (1997) the CWC, and signed the CTBT (1996). Beijing has on various occasions enunciated in clear terms the three principles governing its nuclear exports: (1) IAEA safeguards; (2) peaceful use; and (3) no re-transfers to a third country without China’s prior consent. In May 1996, the Chinese government further pledged not to provide assistance to unsafeguarded nuclear facilities. In October 1997, China formally joined the Zangger Committee.

**Table 1. China and International Nonproliferation Regimes**

<i>International Treaties and Negotiations</i>	<i>Multilateral Export Control Regimes</i>
Acceded to the Non-Proliferation Treaty (NPT), March 1992	Pledged to abide by the original 1987 Missile Technology Control Regime (MTCR) guidelines, February 1992
Signed the Chemical Weapons Convention (CWC), January 1993; ratified CWC and joined the Organization for the Prohibition of Chemical Weapons (OPCW) as a founding member, April 1997	Agreed in the October 1994 U.S.-China joint statement to adhere to the MTCR and to apply the concept of “inherent capability” to its missile exports
Participated in the United Nations Register of Conventional Arms from 1993 to 1997	Officially joined the Zangger Committee, October 1997
Indicated in the October 1994 U.S.-China joint statement support of the negotiation and “earliest possible achievement” of a Fissile Material Cut-Off Treaty (FMCT)	Promulgated the Regulations on Nuclear Export Control in September 1997, and the Regulations on Export Control of Dual-Use Nuclear Goods and Related Technologies in June 1998.

<sup>2</sup> On this point, see Evan S. Medeiros, “China, WMD Proliferation, and the ‘China Threat’ Debate,” *Issues & Studies* 36:1 (January/February 2000), pp. 19-48.

Supported the indefinite extension of the NPT, May 1995	Announced a series of decrees and circulars governing chemical exports: Circular on Strengthened Chemical Export Controls (August 1997); Decree No.1 of the State Petroleum and Chemical Industry Administration (June 1998)
Signed the Comprehensive Test Ban Treaty (CTBT), September 1996	Issued the Regulations on Export Control of Military Items, October 1997
Went along with strengthened International Atomic Energy Agency (IAEA) safeguards, 1997 (although it has yet to endorse IAEA full-scope safeguards)	Participated in 1997-98 U.S.-China official talks on China's possible membership in the MTCR

*Sources:* Adapted from China Profiles database compiled by the East Asia Nonproliferation Program, Center for Nonproliferation Studies. <<http://www.nti.org/db/china/index.html>>

Beijing has also reached a number of bilateral agreements, including an understanding with the United States that China would adhere to the original 1987 MTCR guidelines, and not export missiles “inherently capable of reaching a range of at least 300 km with a payload of at least 500 kg.”<sup>3</sup> In addition, China promised in a November 2000 statement that it would not assist states in developing “ballistic missiles that can be used to deliver nuclear weapons” and that it would issue “at an early date” a “comprehensive” list of missile-related and dual-use items that would require government licenses for export.<sup>4</sup>

A third significant development in China’s evolution toward international nonproliferation norms over the last decade has been the introduction of domestic export control regulations (see Table 2). Beginning with the May 1994 Foreign Trade Law, the Chinese government has issued a series of regulations, decrees, and circulars. In August 2002, China finally issued the long-awaited Regulations on Export Control of Missiles and Missile-related Items and Technologies and the Control List.<sup>5</sup> Beijing has also indicated that it will soon enact two additional laws governing the exports of chemical and biological materials that could be used in WMD development. Taken together, these regulations constitute a nascent export control system.<sup>6</sup> In addition, arms control and nonproliferation is increasingly assuming a higher profile in the making of China’s national security policy. In April 1997, a new Department of Arms Control and Disarmament was established within the Ministry of Foreign Affairs (MFA), and there has been increasing coordination among MFA, MOFTEC (Ministry of Foreign Trade and Economic Cooperation), and CAEA (China Atomic Energy Agency) officials in implementing export control regulations. In conventional arms trade, the Commission on Science, Technology, and Industry for National Defense (COSTIND) and the People’s Liberation Army General Armament Department take a leading role.<sup>7</sup>

<sup>3</sup> “Joint United States-People’s Republic of China Statement on Missile Proliferation,” 4 October 1994.

<sup>4</sup> Associated Press, “China pledges it will not aid foreign missile development,” 21 November 2000.

<sup>5</sup> See Phillip C. Saunders, “Preliminary Analysis of Chinese Missile Technology Export Control List,” Center for Nonproliferation Studies Web report, 6 September 2002. <[http://cns.miis.edu/cns/projects/eanp/pubs/prc\\_msl.pdf](http://cns.miis.edu/cns/projects/eanp/pubs/prc_msl.pdf)>. See also, Li Bin, “Comments on the Chinese Regulation on Missile Technology Export Control,” 26 August 2002. <<http://learn.tsinghua.edu.cn/homepage/S00313/eexctl.htm>>

<sup>6</sup> Richard T. Cupitt and Yuzo Murayama, *Export Controls in the People’s Republic of China, Status Report 1998* (Athens, GA: Center for International Trade and Security, University of Georgia, 1998); Daniel Kwan, “Weapon-control laws a step closer,” *South China Morning Post*, 3 October 2002.

<sup>7</sup> Bates Gill and Evan S. Medeiros, “Foreign and Domestic Influences on China’s Arms Control and

**Table 2. Evolution of China's Export Control System since the 1990s**

<b>SECTORS</b>	<b>LAWS AND REGULATIONS</b>
General	<ul style="list-style-type: none"> <li>• Foreign Trade Law, 1994</li> </ul>
Chemical & Dual-Use	<ul style="list-style-type: none"> <li>• Regulations on Chemical Export Controls, December 1995</li> <li>• Supplement to the December 1995 regulations, March 1997</li> <li>• A ministerial circular (executive decree) on strengthening chemical export controls, August 1997</li> <li>• Decree No.1 of the State Petroleum and Chemical Industry Administration (regarding chemical export controls), June 1998 (Note: These regulations have expanded the coverage of China's chemical export controls to include dual-use chemicals covered by the Australia Group)</li> </ul>
Nuclear & Dual-Use	<ul style="list-style-type: none"> <li>• Circular on Strict Implementation of China's Nuclear Export Policy, May 1997</li> <li>• Regulations on Nuclear Export Control, September 1997 (Note: The control list included in the 1997 regulations is identical to that used by the Nuclear Suppliers Group, to which China is not a member)</li> <li>• Regulations on Export Control of Dual-Use Nuclear Goods and Related Technologies, June 1998</li> </ul>
Military & Dual-Use	<ul style="list-style-type: none"> <li>• Regulations on Export Control of Military Items, October 1997</li> <li>• The Procedures for the Management of Restricted Technology Export, November 1998 (Note: The new regulations cover 183 dual-use technologies, including some on the Wassenaar Arrangement's "core list" of dual-use technologies)</li> <li>• China's Ministry of Foreign Trade and Economics Cooperation (MOFTEC) released a Catalogue of Technologies which are Restricted or Banned in China, presumably also in late 1998</li> </ul>
Missile Systems & Components	<ul style="list-style-type: none"> <li>• Chinese government gave verbal assurance of its intention to adhere to MTCR, November 1991, followed by written commitment, February 1992</li> <li>• U.S. and Chinese governments issued a joint statement on missile proliferation, October 1994. Beijing agreed to ban all MTCR-class missiles and to the "inherent capability" principle in defining MTCR-class missile systems.</li> <li>• The Chinese government issued a statement in November 2000 promising for the first time to promulgate missile export control regulations and to issue a control list.</li> <li>• China announced the promulgation of the Regulations on Export Control of Missiles and Missile-related Items and Technologies and the Control List in August 2002.</li> </ul>

*Sources:* Adapted from China Profiles database compiled by the East Asia Nonproliferation Program, Center for Nonproliferation Studies.

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Nonproliferation Policy," *The China Quarterly* 161 (March 2000), pp. 66-94; Evan S. Medeiros and Bates Gill, *Chinese Arms Exports: Policy, Players, and Process* (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, August 2000).

## REMAINING ISSUES AND CONTROVERSIES

Despite these generally positive developments, the US continues to have serious concerns over China's proliferation policy and activities. One remaining concern is over Beijing's general approach to nonproliferation principles and practices. On the one hand, China has acceded to most broad-based international treaties and conventions with universal membership (e.g., NPT, CWC), and has for the most part complied with their norms and regulations. On the other hand, China remains critical and has declined to join the key multilateral export-control regimes including the Nuclear Suppliers Group (NSG), the Australia Group (AG), the Wassenaar Arrangement, and the MTCR.

The record of Chinese proliferation activities over the past decade remains mixed and contentious.<sup>8</sup> These controversies draw attention to the gap between Beijing's public pronouncements on nonproliferation and its reported proliferation activities, and raise questions about China's commitment and intentions.<sup>9</sup> Recent reports by the National Intelligence Council and the Central Intelligence Agency continue to identify China as one of the key suppliers of materials and technologies that contribute to the proliferation of weapons of mass destruction and their delivery systems.<sup>10</sup>

U.S.-Chinese disputes over nonproliferation issues remain a serious problem in bilateral relations. Over the years, successive U.S. administrations have sought to influence Chinese policy through a combination of inducements and sanctions. These range from the suspension of technology transfers and imposition of economic sanctions against selected Chinese companies in violation of U.S. laws, to incentives in the forms of technology transfers to and commercial space launch contracts with China.<sup>11</sup> Table 3 summarizes U.S. sanctions against China over the years.

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<sup>8</sup> Media coverage in this area is extensive. See also, the Majority Report of the Subcommittee on International Security, Proliferation, and Federal Services of the Committee on Governmental Affairs, U.S. Senate, *The Proliferation Primer* (January 1998); and Shirley A. Kan, *China's Proliferation of Weapons of Mass Destruction and Missiles: Current Policy Issues*. CRS Issue Brief (Washington, DC: Congressional Research Service, updated 25 July 2002).

<sup>9</sup> Medeiros, "China, WMD Proliferation, and the 'China Threat' Debate."

<sup>10</sup> National Intelligence Council, *Foreign Missile Developments and the Ballistic Missile Threat to the United States through 2015*, September 1999. Director of Central Intelligence, *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 1999* (August 2000).

<sup>11</sup> See "U.S. nonproliferation sanctions against China." (Monterey, Calif.: East Asia Nonproliferation Program database, Center for Nonproliferation Studies, 2001); Duncan L. Clarke and Robert J. Johnston, "US Dual-Use Exports to China, Chinese Behavior, and the Israel Factor: Effective Control?" *Asian Survey* 39:2 (March/April 1999), pp. 193-213; Victor Zaborovsky, "Economics vs. Nonproliferation: US Launch Quota Policy toward Russia, Ukraine, and China," *The Nonproliferation Review* 7:3 (Fall-Winter 2000), pp. 152-161.

**Table 3. U.S. Nonproliferation Sanctions against China, 1989-2002**

<i>DATE</i>	<i>SANCTIONS</i>	<i>DESCRIPTION</i>	<i>STATUS</i>
9 July 2002	Imposed against the Jiangsu Yongli Chemicals and Technology Import and Export Corporation (China); Q.C. Chen (China); China Machinery and Equipment Import Export Corporation (China); China National Machinery and Equipment Import Export Corporation (China); CMEC Machinery and Electric Equipment Import and Export Company Ltd. (China); CMEC Machinery and Electrical Import Export Company, Ltd. (China); China Machinery and Electric Equipment Import and Export Company (China); Wha Cheong Tai Company Ltd. (China); China Shipbuilding Trading Company (China); Hans Raj Shiv (India)	Imposed pursuant to the <a href="#">Iran-Iraq Nonproliferation Act of 1992</a>	Duration minimum of two years
9 May 2002	Imposed against the Liyang Chemical Equipment Company (Liyang Yunlong of China); the Zibo Chemical Equipment Plant (Chemet Global Ltd of China); the China National Machinery and Electric Equipment Import and Export Company; the Wha Cheong Tai Company of China; the China Shipbuilding Trading Company; the China Precision Machinery Import/Export Corporation; the China National Aero-Technology Import and Export Corporation, and O.C. Chen, a Chinese businessman.	Imposed pursuant to the <a href="#">Iran Nonproliferation Act of 2000</a>	Duration minimum of two years
16 Jan 2002	Imposed against Liyang Chemical Equipment, China Machinery and Electric Equipment Import and Export Company and a Chinese individual	Imposed pursuant to the <a href="#">Iran Nonproliferation Act of 2000</a>	Duration minimum of two years

1 Sept 2001	Imposed against China Metallurgical Equipment Corporation and its sub-units and successors	Imposed pursuant to the <a href="#">Arms Export Control Act</a> and the <a href="#">Export Administration Act of 1979</a> , as amended. This law is also known as <a href="#">1990 Missile Control Act</a> .  - Imposed against China Metallurgical Equipment Corporation (a/k/a CMEC, a/k/a MECC) (China) and its sub-units and successors.	Duration minimum of two years
18 June 2001	Imposed against Jiangsu Yongli Chemicals and Technology Import and Export Corporation	Imposed pursuant to Section 3 of the <a href="#">Iran Nonproliferation Act of 2000</a>	Valid at least until 2003
21 May 1997	Imposed against five Chinese individuals, two Chinese companies, and one Hong Kong company for knowingly and materially contributing to Iran's chemical weapons program	Imposed pursuant to the <a href="#">Chemical and Biological Weapons Control and Warfare Elimination Act of 1991</a>	Duration minimum of one year
24 August 1993	Imposed against China's Ministry of Aerospace Industry for engaging in missile technology proliferation activities; Chinese government organizations involved in developing or producing electronics, space systems, or equipment and military aircraft; and against Pakistan's Ministry of Defense	Imposed pursuant to the <a href="#">1990 Missile Technology Control Act</a>	Waived November 1, 1994; Sanctions against Pakistani Ministry of Defense expired August 1995
25 May 1991	Prohibition of the export of missile-related computer technology and satellites	Imposed pursuant to the <a href="#">1990 Missile Technology Control Act</a> <ul style="list-style-type: none"> <li>• Restricted the export of missile technology, missile-related computers and satellites</li> <li>• Eliminated waivers on satellite export licenses</li> </ul>	Waived March 23, 1992; Sanctions against SUPARCO expired

*Sources:* Adapted from China Profiles database compiled by the East Asia Nonproliferation Program, Center for Nonproliferation Studies.

## DEVELOPING WORKABLE SOLUTIONS: THE U.S. GOVERNMENT'S ROLE

Problems related to China's export control system result from a number of factors. These include China's perspectives on the balance between nonproliferation obligations and legitimate civilian trade; commercial and geo-strategic interests in South Asia, the Persian Gulf, and the Middle East; deliberate lapses in enforcement as a response to certain U.S. policies such as arms sales to Taiwan and Beijing's growing attempts at issue linkage; and the nascent nature of its export control system.

Studies at the [Center for International Trade and Security](#) (CITS) and elsewhere indicate that there remains a considerable gap between China's domestic export control system and the more stringent standards of existing multilateral export control regimes. Needless to say, these multilateral regimes themselves are also facing enormous challenges. These include diversity in perspectives, the growing number of potential suppliers, increasing indigenous capacity for WMD acquisition, discrepancies in national export control systems, and lack of prompt institutional responses to globalization and the diffusion of dual-use technology.<sup>12</sup> China's inability to monitor and control its business community is partly a product of the nascent nature of its domestic export control system; ambivalence about inter-agency policy coordination on issues ranging from license review and approval to customs inspections further compounds this problem.<sup>13</sup> Meanwhile, decentralization and institutional pursuit of parochial interests encourage companies to dodge regulations and even openly defy rules. The controversial sale of 5,000 ring magnets to Pakistan has often been cited as such an example, and illustrates the inadequacy of government oversight. In addition, the sheer size of the chemical industry and the growing number of dual-use items make control efforts exceedingly difficult.

China's current nuclear export controls consist of three main components<sup>14</sup>: (1) a May 1997 State Council circular on nuclear and nuclear-related dual use export controls, (2) [the September 1997 nuclear export control regulations](#) (with an attached control list that mirrors the [Nuclear Suppliers Group \(NSG\)](#) control list on nuclear items (INFCIRC/254 [Part I](#))) and (3) [the June 1998 regulations covering dual use nuclear export](#) (with attached an control list that is the same as the NSG's control list on nuclear related dual use items (INFCIRC/254 [Part II](#))). These regulations give legal effect to China's three nuclear export principles (see below) and its [May 11, 1996 pledge](#) not to provide assistance to unsafeguarded nuclear facilities. According to the regulations, only State Council-designated entities can conduct nuclear exports.

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<sup>12</sup> Center for International Trade and Security, *Strengthening Multilateral Export Controls: A Nonproliferation Priority* (Athens, GA: CITS, the University of Georgia, September 2002); Jing-dong Yuan, "The Future of Export Controls: Developing New Strategies for Nonproliferation," *International Politics* 39:2 (June 2002), pp. 131-151.

<sup>13</sup> See Cupitt and Murayama, *Export Controls in the People's Republic of China*. See also, Wen L. Hsu, "The Impact of Government Restructuring on Chinese Nuclear Arms Control and Nonproliferation Policymaking," *The Nonproliferation Review* 6:4 (Fall 1999), pp. 152-167; Yuzo Murayama, "China's Export Control Policy in East Asian Context: Implications from Economic Perspectives," paper presented at the Sixth ISODARCO Beijing Seminar on Arms Control, October 29-November 1, 1998, Shanghai, China..

<sup>14</sup> The following discussion draws largely on *China Profiles*, a database maintained by the East Asia Nonproliferation Program, Center for Nonproliferation Studies. See <http://www.nti.org/db/china/index.html>.

China's current conventional arms export controls are based on the October 1997 [Regulations on Export Control of Military Items](#). The regulations, which took effect on January 1, 1998, give legal effect to China's conventional arms export principles. The regulations will include a control list, to be completed in early 1998. According to the regulations, only State Council-designated entities can conduct military exports. No control list is available. Exports of missiles and missile-related technology are governed by the recently released Regulations of the People's Republic of China on Export Control of Missiles and Missile-related Items and Technologies and the Missiles and Missile-related Items and Technologies Export Control List.<sup>15</sup>

China's current chemical export controls consist of three main components: (1) the [December 1995 Regulations on Controlled Chemicals](#) (with a Schedule of Chemicals based on the regulations and three schedules of chemicals contained in the [Chemical Weapons Convention \(CWC\)](#)); (2) the [March 1997 Supplement](#) to the December 1995 chemical export control regulations, issued in preparation for China's April 1997 ratification of the CWC; and (3) the [August 1997 Ministerial Circular](#) on strengthened chemical export controls. According to the regulations, only State Council-designated entities can export Schedule 1-3 chemicals. The Chinese government is currently working on more detailed regulations and control lists for chemical and biological materials and may release them prior to Chinese President Jiang Zemin's upcoming October visit to Crawford, Texas.

Following the format developed by CITS, an objective and comprehensive assessment of the Chinese export control system should cover the following areas:

- Regime adherence and participation
- Legal framework development and improvement, and in particular the promulgation of open and comprehensive control lists
- Bureaucratic processes and division of labor, including inter-agency review procedures
- Export application, review, and approval procedures
- Enforcement, customs inspections, and punitive measures
- Pre-license checks and post-shipment verification systems
- Infrastructure development, personnel training, and education

The U.S. government could and should more actively assist China in improving its export control system. Two principal objectives should guide such efforts: increasing the level of compatibility between China's export control system and the multilateral regimes, and strengthening implementation of Chinese export control regulations. The latter of these two objectives would involve assistance in capacity building, including but not confined to: personnel training; infrastructure development; control list harmonization and refinement; technical advice on inter-agency review process; and the establishment of a national databank.

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<sup>15</sup> [Regulations of the People's Republic of China on Export Control of Missiles and Missile-related Items and Technologies](#) and the [Missiles and Missile-related Items and Technologies Export Control List](#).

**Shaping China's perspectives and seeking its membership in multilateral export control regimes.** Supply-side control measures can only be effective if all major supplier states share broadly similar foreign policy preferences in specific issue-areas. If key suppliers remain outside the export-control arrangements, nonproliferation efforts will be less effective in achieving their stated objectives. Clearly, the need to encourage China to join multilateral export control regimes must continue to remain on the U.S.-China strategic dialogue agenda. This dialogue should not merely focus on U.S. concerns over specific Chinese proliferation activities, but also on the potential threats that WMD proliferation can pose to China's own security. One issue regarding China's membership in these multilateral export control regimes remains under debate and in need of resolution: whether Beijing, and other prospective member states, needs to meet existing regime standards for admission or whether they should be admitted with the expectation that existing rules and guidelines will constrain their behavior while they gradually adapt to regime standards.

The U.S. government has accumulated invaluable experience over the years in drawing Russia and the former Soviet republics into the multilateral export control regimes. These efforts have slowed if not completely prevented the proliferation of nuclear materials and have enjoyed bipartisan support in Congress. The attention and resources devoted through intensive and sustained efforts such as the Nunn-Lugar Initiative to helping the newly independent states develop export control systems helped prevent the former Soviet Union from becoming an international nuclear bazaar.<sup>16</sup> Similar efforts have not been applied elsewhere due to insufficient attention, lack of interest, and a dearth of resources. Limited U.S.-Japan efforts to promote export control awareness in East Asia stand as a partial exception.<sup>17</sup> A global effort is necessary.

**Developing a legal framework in China for export controls.** China has issued a series of export control regulations over the years. Compared to the United States and other major Western countries, China's practice remains largely administrative rather than legalistic both in weight and execution. The development of a legal framework for export control would remove arbitrariness and enhance transparency, in particular for companies involved in relevant areas of trade. It could also contribute to the development of an independent judicial system that could play an increasingly important role in adjudicating potential violations and disputes. This is particularly critical with regard to companies that have important connections at the top. Encouraging China to harmonize with and adapt its control lists to those maintained by multilateral export control regimes would also help close potential loopholes and remove potential disputes between China and the United States. China's recently released missile control list is reasonably comprehensive and follows the MTCR Annex. However, critical omissions remain and could cause problems in the future.<sup>18</sup>

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<sup>16</sup> Scott Parrish and Tamara Robinson, "Efforts to Strengthen Export Controls and Combat Illicit Trafficking and Brain Drain," *The Nonproliferation Review*, Vol.7, No.1 (Spring 2000), pp. 112-124; Michael H. Newlin, "Export Controls and the CTR Program," in John M. Shields and William C. Potter, eds., *Dismantling the Cold War: U.S. and NIS Perspectives on the Nunn-Lugar Cooperative Threat Reduction Program* (Cambridge, Mass.: The MIT Press, 1997), pp. 291-308.

<sup>17</sup> See, for example, Gary K. Bertsch, Richard T. Cupitt, and Takehiko Yamamoto, "Trade, Export Controls, and Non-proliferation in the Asia-Pacific Region," *The Pacific Review*, Vol.10, No.3 (1997); pp. 407-425; Bertsch, Cupitt, and Yamamoto, eds., *US and Japanese Nonproliferation Export Controls: Theory Description and Analysis* (Lanham, MD: University Press of America, 1996).

<sup>18</sup> See Saunders, "Preliminary Analysis of Chinese Missile Technology Export Control List."

**Personnel training and infrastructure development.** Education and training of export control personnel should be a relatively controversy-free area where concrete and immediate work can be done. This could involve seminars, workshops, and site visits to demonstrate to Chinese officials' methods for handling paperwork, shipment inspections and records, and so on. The critical element is to develop standardized operating procedures to streamline the review process and reduce unnecessary caseload stoppage and slowdown. The United States and Japan have held a series of export control seminars for East Asian countries; this practice could and should continue. In addition, the U.S. government could assist China in the development of a national databank to store information on license applications and applicants, compliance records, and approval/rejection ratios. Companies that comply with end-use provisions and have clean records could be given preference in terms of license review and granting. This practice could free enforcement resources to focus on other problems and/or tackle new developments.

**Encouraging government-business cooperation on export controls.** While in the past the Chinese government could use its centralized planning system to discipline companies, economic reforms have made it harder for the government to enforce laws. There is a need to educate industries on the importance of compliance with existing export regulations. The U.S. experience suggests that control measures must be crafted with clearly defined scope, purpose, and enforcement measures in place, and implemented with streamlined license reviewing and granting procedures. Industry concerns over lost sales and market shares due to delays in license review and approval are not unreasonable, and will be increasingly applicable following China's accession to the World Trade Organization (WTO).

**Technical advice on inter-agency coordination on export control procedures.** The United States has extensive experience to share given its long history of export controls. One area deserving particular attention is the license review and approval procedure. Confusion over responsibility has caused the system to run less smoothly; China could learn to avoid similar mistakes. This may involve inter-agency consultation and coordination, and effective and enforceable post-shipment verification to monitor end-use. In addition, there should also be greater and more regular exchange of information and intelligence among exporters and importers. China cannot just rely on the good will of recipient states to ensure proper use; it must begin developing its own post-shipment verification to tract and monitor its exported dual-use items. The U.S. government could assist in this area as well.

Nonproliferation is a global challenge, and requires global efforts. A more effective Chinese export control system is in the interest of both China and the United States. Political obstacles have inhibited government-to-government cooperation in the past, but the post-September 11th security environment and recent improvements in bilateral relations have provided an opportunity for new initiatives in fighting the proliferation of weapons of mass destruction. This memo illustrates some areas where cooperation between the United States and China might be productive.