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International Legal Frameworks Relating to China’s Nuclear Exports to Iran: Safeguarding the Transfer of Dual-Use Nuclear Technology

Jon L. Woodard*

I. Introduction

During the early 1990s, the United States and Russia began to reduce their nuclear arsenals, ending the intense arms race that had persisted during the previous decades. While it appeared that the threat of a nuclear confrontation between the superpowers was ending, it also appeared that smaller, less stable, and highly aggressive states would soon have the technology and infrastructure to develop nuclear arsenals of their own. Given the political tension that has existed between the United States and Iran since the late 1970s, the realization that Iran would likely be included in this collection of emerging nuclear powers was particularly troubling. Currently, the U.S. government believes that Iran is actively engaged in a clandestine nuclear weapons program. U.S. and Israeli intelligence estimates suggest that Iran could develop full nuclear weapon capabilities sometime between the years 2000 and 2005. Moreover, Iranian weapon technology might already be at a more advanced state of development had Iran’s program not suffered setbacks such as the destruction of a

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reactor at Bushehr during an Iraqi air raid in 1987. Despite setbacks, however, Iran continues to pursue its nuclear development with foreign assistance. In 1984, China assisted Iran in the construction of a nuclear technology center at Esfahan, and later entered a $1.2 billion contract with Iran for the construction of a new 300 MWe nuclear plant near Bushehr to be completed by 2005.

The assistance that China provided to Iran for the facilities at Esfahan and Bushehr was not an isolated event. Recognized as one of the most aggressive arms exporters in the world, China has a long history of exporting arms to countries throughout the Middle East. For example, approximately 55% of China’s conventional weapons exports during the late 1980s went to the Middle East. China also possesses an experienced and impressive technological base for maintaining an infrastructure for the production of nuclear warheads and delivery systems. In its capacity as an exporter, the country has often drawn upon its own technological base for providing client states with similar comprehensive technologies, enabling those clients to eventually develop the capability of operating and maintaining similar technological infrastructures on their own.

U.S. concerns over China’s proliferation practices have led the U.S. State Department to oppose Chinese nuclear exports, arguing: “Engagement is vital to halting proliferation. It is in our vital national interest that China embrace international norms, and abide by them. China’s record is clearly mixed. Engagement is necessary to sustain progress made, and to address areas of continuing concern.”

Commentators argue that rather than reflecting any normative set of internationally followed standards, Chinese nuclear

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4 See id.
5 See id.
6 See Kellman, supra note 1, at 781.
7 See id. at 779-80.
8 See id. at 781.
9 See id.
proliferation policies prior to the late 1990s were marred with inconsistencies.\textsuperscript{11}

In January 1995, China announced that it would not sell two nuclear reactors to Iran, possibly in response to pressures from the U.S. government.\textsuperscript{12} By May 1998, national security correspondents of the \textit{Washington Times} were reporting renewed nuclear sales discussions between Iran and China.\textsuperscript{13} Members of the U.S. Congress in 1996 had criticized the Chinese pledge as an “empty promise” by a “pathological proliferator,”\textsuperscript{14} though the Clinton administration insisted “there was no evidence that China was violating its May 11 pledge not to supply illegal technology to Pakistan or Iran.”\textsuperscript{15}

The controversy surrounding China’s nuclear export policy reflects an historic pattern in the country’s nuclear dealings. Even if international nuclear nonproliferation standards do in fact exist, as suggested by the State Department’s position, they may not extend to exports of civil or \textit{peaceful} nuclear technologies. These standards and the legality of China’s recent nuclear dealings must be evaluated through a closer examination of current international law. This article examines the legality of Chinese nuclear proliferation as represented by current nuclear exports to Iran. Part II discusses the problem of the inherent military/nonmilitary duality of nuclear technology. Part III provides an overview of the existing international legal regimes as they apply to nuclear energy exports and will examine whether an applicable international standard exists. Part IV explores the limits of the regime examined in Part III. Part VI analyzes possible U.S. actions that


\textsuperscript{12} See China Says Deals to Sell Iran Nuclear Reactors Scrapped (visited Oct. 11, 1995) <http://www.sddt.com/files/librarywire/96wireheadlines/01_96/DN96_01_09/DN96_01_09_1c.htm> [hereinafter China Says Deals... Scrapped].


\textsuperscript{14} R. Jeffrey Smith & Thomas W. Lippman, \textit{Beijing Vows to End Nuclear Sales; Aid To Russia Continued}, WASH. POST, May 11, 1996, at A1.

\textsuperscript{15} Peter Slevin, \textit{U.S., China Advance on Nuclear Trade, Bicker Over Rights}, SEATTLE TIMES, Nov. 21, 1996, at A13 (emphasis added).
may ultimately achieve the desired result of Chinese nonproliferation to Iran. Finally, Part VII considers the prospects for realistic changes in both Chinese and U.S. foreign nuclear policies. This review begins with an overview of the inherent problems associated with classifying various areas of nuclear technology.

II. Problems of Military and Nonmilitary Duality of Nuclear Technology

The international nature of the nuclear processing cycle has complicated the formation of a uniform nuclear legal vocabulary. No single meaning of “peaceful uses” has been generally accepted by the international community, due to the recent overlapping of traditional peaceful and nonpeaceful areas of nuclear technology. For example, military uses of nuclear technology not related to the production of weaponry may be considered peaceful. Nuclear detonations for large-scale construction or strictly scientific evaluations, however, may not qualify as peaceful applications. In addition, nuclear facilities built to generate electricity may also produce by-products that can serve as weapon fuels. The same problem extends to the area of nuclear know-how, since the knowledge needed for implementing most peaceful uses of nuclear energy is often indistinguishable from that needed for the production of weapons.

For these reasons, the international community often regards peaceful nuclear energy exports as being equivalent to weapons proliferation. China, citing other internationally recognized obligations, has often criticized other nuclear weapon states for denying peaceful nuclear technology to developing countries.

17 See Meise, supra note 11, at 552-53.
19 See id.
21 See id.
22 See Jill M. Sheldon, Nuclear Weapons and the Laws of War: Does Customary International Law Prohibit the Use of Nuclear Weapons in all Circumstances?, 20
Consequently, China's export policy is often directly at odds with those of the United States and other nuclear weapon states.

Despite the inherent ambiguities of nuclear technology, the international legal regime regulating peaceful uses of nuclear energy is interwoven with the legal regime of nuclear weapons nonproliferation. Thus, many sources of international nuclear law may extend to both military and civilian applications. A number of potential sources may be suitable for this examination. Further, combinations of these sources may lead to binding international standards.

III. Overview of the International Nuclear Legal Regime

The breadth of the nuclear energy field and the inherent military/nonmilitary duality of nuclear and nuclear-related technologies would significantly limit any effort to codify an all-encompassing international nuclear legal regime, let alone an effort to codify an international regime relating to weapons of mass destruction. In comparison, international caselaw has been similarly limited because (1) nuclear weapons have not been used in combat since the end of World War II, so no claims have been brought before international tribunals; (2) on the rare occasions that international tribunals have commented on nuclear weapons use, they have provided no per se rule to outlaw their use; and (3) where commentators have argued that closely related areas of law, such as internationally-recognized humanitarian rules of war, seemingly outlaw nuclear weapons, they have conceded that such prohibitions are not per se prohibitions. For these reasons, existing international frameworks have grown from a web of national and international measures into a mix of legally binding

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FORDHAM INT'L L. J. 181, 192-93 (1996). China makes this contention on the basis of the obligations of nuclear weapons States, under the Non-Proliferation Treaty (NPT), to share their technology with nonweapons State members of the treaty. See infra notes 50-58 and accompanying text.

23 See Ioannou, supra note 16, at 293.

24 See Kellman, supra note 1, at 800.

25 In an opinion on the legality of nuclear weapons, the International Court of Justice held unanimously that while the use or threat of nuclear weapons was not explicitly authorized by international law, no customary rule or convention specifically prohibited their use or threat of use. See Legality of the Threat or Use of Nuclear Weapons, 35 I.L.M. 809, 827-31 (July 8, 1996).

26 See Sheldon, supra note 22, at 254.
standards and regulations.\textsuperscript{27} The Treaty on the Non-Proliferation of Nuclear Weapons\textsuperscript{28} or Non-Proliferation Treaty [hereinafter NPT] is considered the most important and viable multilateral attempt to date for controlling the spread of nuclear weapons.\textsuperscript{29} The treaty’s primary purpose is to prevent horizontal proliferation of nuclear material, inhibiting the transfer of nuclear weapons or weapons-related technology from nuclear weapon states to non-nuclear weapon states.\textsuperscript{30} Pursuant to the treaty, nuclear weapon-possessing states may not provide nuclear weapons to or encourage weapon development by non-nuclear weapon states.\textsuperscript{31} States without nuclear arms agree not to acquire such weapons,\textsuperscript{32} with the understanding that all states may freely develop peaceful uses of nuclear energy.\textsuperscript{33} For the purposes of verification and treaty compliance, each non-nuclear weapon state agrees to accept safeguards as established through subsequent negotiations with the International Atomic Energy Agency (IAEA).\textsuperscript{34} Such negotiations with the IAEA must commence immediately upon accession or ratification of the NPT by a given state\textsuperscript{35} and embody the detailed implementation and technical details to be followed in complying with the Article III safeguards requirements of the NPT.\textsuperscript{36} Every party to the treaty must also refrain from providing (a) source or special fissionable materials, suitable for the production of nuclear weapons; or (b) equipment or materials for preparing or processing fissionable materials to any non-nuclear state, unless the materials are subject to the treaty’s safeguards.\textsuperscript{37} Nothing may impede member states

\textsuperscript{27} See ElBaradei, supra note 20.
\textsuperscript{29} See Ioannou, supra note 16, at 282-83.
\textsuperscript{30} See ElBaradei, supra note 20.
\textsuperscript{31} See NPT, supra note 28, art I.
\textsuperscript{32} See id. art. II.
\textsuperscript{33} See id. art. IV.
\textsuperscript{34} See id. art. III.
\textsuperscript{35} See id. art. III. This immediate negotiation requirement applies only to parties acceding to the NPT after the date of ratification. See id.
\textsuperscript{36} See ElBaradei, supra note 20.
\textsuperscript{37} See NPT, supra note 28, art. III.
from developing peaceful uses of nuclear energy, and all parties have the explicit right to partake in peaceful nuclear development.\textsuperscript{38} All parties also have the explicit obligation to make potential benefits of nuclear energy available to non-nuclear weapon states at the lowest cost possible.\textsuperscript{39} In accordance with this requirement, safeguards implemented by the IAEA must be undertaken so as not to hamper economic or technological development of the non-nuclear weapon states.\textsuperscript{40} Additionally, all member states are obligated to make good faith efforts toward the cessation of the nuclear arms race and international disarmament.\textsuperscript{41}

With over 180 adherents,\textsuperscript{42} the NPT is by far the most comprehensive and effective multilateral agreement in existence. It is also one of the most respected, with no party having ever withdrawn from the treaty and with only two recorded breaches during its first 25 years.\textsuperscript{43} In 1995, parties to the NPT approved the treaty’s indefinite renewal.\textsuperscript{44} China, Iran, and the United States all maintain NPT memberships, with China joining most recently in 1992.\textsuperscript{45}

As an instrument of international law, the NPT relies heavily on the IAEA, since the IAEA implements the NPT’s safeguards mechanism. Among potential sources of international law, the only multilateral treaty dealing exclusively with peaceful nuclear energy uses is the Statute of the International Atomic Energy Agency\textsuperscript{46} (IAEA Statute). The IAEA itself is the central international authority for channeling procedures for peaceful uses

\begin{thebibliography}{9}
\bibitem{38} See id. art. IV.
\bibitem{39} See id. art. V.
\bibitem{40} See id. art. III.
\bibitem{41} See id. art. VI.
\bibitem{42} See Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (Oct. 11, 1999) <http://www.iaea.org/worldatom/glance/legal/npt.html> (containing an updated IAEA listing of current parties to the NPT) [hereinafter NPT List].
\bibitem{43} See Kellman, supra note 1, at 801. The only recorded violations during the 25-year life of the treaty have been those committed by Iraq and North Korea. See id.
\bibitem{44} See Meise, supra note 11, at 541.
\bibitem{45} See NPT List, supra note 42.
\end{thebibliography}
of nuclear power.\textsuperscript{47} As an international organization, however, the IAEA’s role is limited by its governing treaty.\textsuperscript{48} Pursuant to the treaty, the IAEA must establish and administer a system of safeguards to ensure that special fissionable or other materials under its control are not used for military purposes.\textsuperscript{49} In performing these safeguards, the agency may send inspectors into a nonweapon state’s sovereign territory.\textsuperscript{50} The inspectors must have access at all times to all facilities, materials, and equipment which must be safeguarded under the statute in order to determine compliance and whether any of the inspected materials have been used for any military purpose.\textsuperscript{51} The statute also grants the agency the right to require the maintenance and production of operating records for ensuring accountability of fissionable materials.\textsuperscript{52}

In addition to setting forth the agency’s duties for conducting NPT safeguards, the IAEA Statute also requires the agency to undertake certain affirmative steps toward promoting peaceful uses of nuclear energy among states. The general requirement is for the agency to accelerate and enlarge the contribution of atomic energy for peaceful uses and exclude military-related uses.\textsuperscript{53} In doing this, the IAEA must make provision for services, equipment, and facilities to meet the needs of underdeveloped states.\textsuperscript{54} The agency must also work to foster exchanges of scientific and technical information on peaceful nuclear energy uses.\textsuperscript{55} Any member state requesting agency assistance in setting up a peaceful atomic energy project is entitled to receive assistance with respect to fissionable and related materials, services, equipment, and facilities.\textsuperscript{56} The statute requires the agency to prevent facilities and equipment under its control from

\begin{footnotesize}
\textsuperscript{47} See Ioannou, supra note 16, at 290.
\textsuperscript{48} See RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 223 (1986).
\textsuperscript{49} See IAEA Statute, supra note 46, art. III(A)(5).
\textsuperscript{50} See id. art. XII(A)(6).
\textsuperscript{51} See id.
\textsuperscript{52} See id. art. XII(A)(3)-(4).
\textsuperscript{53} See id. arts. II-III.
\textsuperscript{54} See id. art. III(A)(2).
\textsuperscript{55} See id. art. III(A)(3).
\textsuperscript{56} See id. art. XI(A).
\end{footnotesize}
being used for military purposes. In theory, upon discovering that a receiving state has engaged in a military purpose or otherwise failed to comply with the NPT safeguard requirements, the agency may withdraw materials made in furtherance of a project and terminate or suspend agency assistance. The receipt of future technical assistance can thereafter be conditioned on whether the requesting state previously adhered to the NPT's safeguard requirements or other NPT regulations. The agency must also report instances of noncompliance to the General Assembly and Security Council of the United Nations. Depending on the circumstances and the specific response, subsequent Security Council Resolutions can significantly expand the IAEA's verification rights.

In past decades, the NPT, the IAEA Statute, and associated frameworks have each played major roles in forming an international nuclear legal regime. In recent years, however, commentators have observed that each of these instruments has shifted in its purpose. The ultimate goal of international nonproliferation policy has been to provide security and to maintain hegemony among states. Since the end of the Cold War, the focus of instruments like the NPT has shifted away from the threat of a superpower confrontation to the danger of renegade third world countries developing and exploiting nuclear weapon technology. Though imperfect, the NPT and other existing nuclear frameworks were successful in slowing weapons

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57 See id. art. III(A)(5).
58 See id. art. X(A)(7).
59 See ELBARADEI, supra note 20.
60 IAEA Statute, supra note 46, art. XII(C). Notably, in the instances of the two known NPT violations by Iraq and North Korea, the IAEA subsequently reported its findings of non-compliance to the United Nations, which eventually led to U.N. Security Council Resolutions. See ELBARADEI, supra note 20.
61 In the case of Iraq's noncompliance, for example, the Security Council's Resolution 687 of April 3, 1991 extended the IAEA's rights in this way. The Resolution involved a special plan for on-going monitoring by the Agency and continued Security Council sanctioning for the IAEA inspectors. See ELBARADEI, supra note 20.
62 See Meise, supra note 11, at 542-43.
63 See Kellman, supra note 1, at 767.
64 See Meise, supra note 11, at 542-43.
proliferation during the Cold War and in subsequent years.\textsuperscript{65} As a result, the world is considerably safer than it would have been absent such frameworks.\textsuperscript{66} The question remains, however, whether existing frameworks are suitable for preventing proliferation in the post-Cold War era. A review of the frameworks’ potential shortcomings is needed to address this question.

\textbf{IV. Limitations of the Existing Nuclear Law Regimes}

In spite of its past success, the existing international legal framework is limited by the same fundamental aspects that made the framework successful in controlling nuclear proliferation during the Cold War. For example, the NPT, in attempting to delineate between peaceful and nonpeaceful uses of nuclear energy, places no restriction on trade that promotes peaceful nuclear energy uses.\textsuperscript{67} Exporters providing dual-use nuclear materials need only demonstrate that their exporting activities are not intended to further weapons activities.\textsuperscript{68} The NPT places no further restriction on the trade of such equipment, even though such equipment could be used to develop a weapons program.\textsuperscript{69} This inherent shortcoming of the existing framework has been recognized as the most significant limitation in preventing horizontal proliferation among states.\textsuperscript{70} In particular, the IAEA has never acknowledged the impropriety of any of China’s well-documented activities in the proliferation of such dual-use materials.\textsuperscript{71}

By design, Article III safeguards required under the NPT have additional limitations that depend upon whether an activity has been declared to the appropriate international authorities.\textsuperscript{72} As implemented by the IAEA, the existing system of safeguards has

\begin{itemize}
\item \textsuperscript{65} See Kellman, supra note 1, at 800.
\item \textsuperscript{66} See id.
\item \textsuperscript{67} See Kellman, supra note 1, at 805-06.
\item \textsuperscript{68} See id. at 806.
\item \textsuperscript{69} See id.
\item \textsuperscript{70} See Meise, supra note 11, at 553.
\item \textsuperscript{71} See id. at 565.
\item \textsuperscript{72} See IAEA Statute, supra note 46, art. III; see also Kellman, supra note 1, at 802-03.
\end{itemize}
been highly effective for regulating declared activities, but much less effective for regulating activities undeclared by the acting parties. While declared activities automatically invoke supervision by the IAEA or other appropriate authorities, the existing framework, including the NPT, provides no formal or systematic mechanism to inform the IAEA of clandestine activities. These limitations have led to five notable shortcomings in the regime's safeguards mechanism: (1) the safeguards mechanism ultimately relies on information provided by either the exporting or receiving state involved in a given nuclear transaction; (2) after the given transaction, the safeguards mechanism alone cannot prevent a state from transferring material from peaceful to military purposes; (3) safeguards alone cannot be used to anticipate a state's future actions with respect to compliance; (4) safeguards may be useless as a verification mechanism after materials have been transferred out of a given state to another jurisdiction; and (5) the safeguards mechanism is terminated once materials are no longer usable or practically useful for nuclear purposes, limiting retroactive implementation of the mechanism. Commentators have blamed the recent developmental successes by the Iraqi and North Korean weapons programs on these listed shortcomings.

In addition to the regime's inherent shortcomings, enforcement actions undertaken by the international community also appear to have a limited effect. The NPT provides no explicit penalty for noncompliance. The IAEA does provide some enforcement actions, such as: (1) the ability to condition the receipt of future technical assistance on past NPT compliance; and (2) the ability to suspend members from the rights and privileges of NPT/IAEA membership with a two-thirds vote of the IAEA General

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73 See ELBARADEI, supra note 20.
74 See Kellman, supra note 1, at 805.
75 It is still possible, however, that such a transfer may invoke action by the UN Security Council. See ELBARADEI, supra note 20.
76 See id.
77 See Kellman, supra note 1, at 804-05.
78 See id. at 805.
79 See IAEA Statute, supra note 46, art. XII(A)(7).
The actual effectiveness of these measures, however, is limited by, among other factors, (1) whether the noncomplying state is actively participating in the NPT/IAEA and IAEA General Conference; (2) whether the noncomplying state is currently receiving a substantial level of assistance from the IAEA; and (3) whether the noncomplying state has future prospects for receiving IAEA assistance.

The most effective methods of enforcing standards, whether set forth by customary law, the NPT, the IAEA, or associated frameworks, are unclear and not pre-established. It has been suggested that the only all-encompassing IAEA enforcement mechanism is the IAEA’s obligation for reporting violations to the U.N. Security Council. Given the fact that the Security Council does not generally undertake to enforce treaties, however, actual Security Council response is normally limited to noncompliance in situations that appear imminently to threaten international peace and security. Instead, enforcement action is most often undertaken by political leaders on an ad hoc basis, depending on the actual or perceived threat to international peace. Further, there appears to be little penalty, if any, for a state’s failure to comply with a NPT resolution.

Regardless of the mechanisms within the existing international framework, the most significant limitation may be the framework’s ultimate respect for state sovereignty—a factor that

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80 See id. art. V(A)-(D).
81 See ELBARADEI, supra note 20; see also IAEA Statute, supra note 46, art. IV(C) (providing guidance as to the terms and conditions of membership).
82 See ELBARADEI, supra note 20; see also IAEA Statute, supra note 46, arts. XII(A)(7), III(A) (outlining the safeguards and procedures to terminating membership and discussing the functions of the IAEA, respectively).
83 See ELBARADEI, supra note 20; see also IAEA Statute, supra note 46, art. IV(C) (outlining the terms and conditions of membership).
84 See Kellman, supra note 1, at 767.
85 See id. at 805.
86 See id.
87 See id. at 767. In this respect, it is difficult to distinguish the ad hoc response of political leaders in the international community from that of the U.N. Security Council unless the imminent threats, as actually perceived, differ. See id.
88 See Meise, supra note 11. A State’s failure to work toward worldwide disarmament is an example of non-compliance. See NPT, supra note 28, art. VI.
during the Cold War worked to strengthen the regime. For example, under the NPT, parties have the right to exercise their respective state sovereignty and withdraw from the treaty after three months prior notice. The NPT expressly allows for withdrawal upon a state’s individual determination that the treaty has in some way jeopardized the supreme interests of that state. Withdrawal effectively terminates the safeguards mechanism as implemented by the IAEA in the respective country. Even before a state withdraws, the IAEA is required to conduct all activities, including the implementation of safeguards, with the maximum respect for the state’s sovereign rights. Critics have argued that the three-month withdrawal mechanism actually encourages proliferation because states withdrawing would most likely be those on the verge of nuclear development. If this is true, then the IAEA Statute actually works against the objective of nonproliferation.

By requiring and facilitating exchanges of fissionable materials, technical information, and training of scientists, the IAEA Statute allows for nuclear transfers that could enable a nonweapon state, through the accumulation of dual-use nuclear technologies, to build a nuclear infrastructure near the threshold of nuclear weapons capability. The state’s subsequent withdrawal from the NPT could easily precede the initialization of a fully functional weapons program. Although the existing international regime has been a qualified success in restricting access to nuclear technology, only non-NPT states such as Israel, South Africa, and Pakistan have been denied technology under the regime. Such restrictions clearly do not apply to full NPT members such as

89 See Meise, supra note 11, at 571, 576.
90 NPT, supra note 28, art. X(1).
91 See id.
92 See ELBARADEI, supra note 20.
93 See IAEA Statute, supra note 46, art. III(D).
94 See Meise, supra note 11, at 552.
95 See IAEA Statute, supra note 46, art. IX(D).
96 See id. art VIII.
97 See id. art. III(A)(4).
98 See Kellman, supra note 1, at 808.
China and Iran. So long as China successfully qualified its nuclear transfers to Iran as peaceful, there appears to be very little to preclude the legality of those transfers under the current international framework. For this reason, the United States must examine all options within the letter and spirit of the existing international framework if it hopes to limit China’s nuclear exports to another NPT state.

V. Potential Courses of Action for Influencing Chinese Proliferation

China’s rights under the NPT have not prevented the United States from asserting at least a nominal influence over China’s nuclear dealings. As described in Part I, China’s 1995 announcement that it would cease construction of two nuclear reactors in Iran was an apparent response to heightened pressures from the U.S. government. Critics of U.S. foreign policy have alleged that the greatest limitation on U.S. efforts to curtail Chinese nuclear proliferation has not been China’s resistance, but rather the historic lack of consistent foreign policy exercised by recent U.S. administrations. Still, ad hoc government policies have proven effective in many directly and indirectly related circumstances. After a conclusive finding in 1991 that China had sold components to Pakistan for its M-11 missile delivery system, President Clinton responded with a restriction on computer technology exports to China—a restriction that proved a heavy detriment to China’s satellite program. China eventually accepted the guidelines of the International Missile Technology Control Regime (MTCR) in return for an American promise to lift the embargo. Some observers believe that China’s acceptance of the MTCR guidelines was in fact a quid pro quo with the United States. Future assurances of technology transfer may have

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99 See id.
100 See Meise, supra note 11, at 569-70.
101 See China Says Deals ... Scrapped, supra note 12.
102 See Meise, supra note 11, at 564.
103 See id. at 557-58.
104 See Kellman, supra note 1, at 785. The MTCR is a major part of the international control regime relating to missile delivery systems. See id.
105 See Meise, supra note 11, at 569-70.
played a role in the 1995 suspension of reactor shipments to Iran. 106 Indeed, during the 1990s, Congressional limitations on exports of technology, whether or not related specifically to nuclear weapon know-how, have proven to be an effective bargaining tool for curtailing Chinese nuclear proliferation activities. 107

Another proposed tool for restricting Chinese nuclear exports has been economic sanctions. Congressional threats to terminate China’s most-favored-nation trading status coincided with negotiations leading to China’s MTCR adherence. 108 The loss of most-favored-nation status could threaten China’s export market in the United States and, therefore, played a substantial part in China’s ultimate decision to adhere. 109 Even so, the suggestion that U.S. nonproliferation policy should resort to economic sanctions against noncomplying states has been strenuously criticized by a number of authorities, including the U.S. State Department. 110 Most opposition to economic sanctions has rested on two observations: (1) economic sanctions merely have the tendency to reflect the United States’ short-term political concerns and ad hoc approach to nonproliferation rather than a long-term policy based on world-wide security, which is the greater concern for the existing international nonproliferation regimes; and (2) links between economic sanctions and nonproliferation most often lead to resentment and reduced initiatives for free enterprise—two forces that tend to work toward demilitarization. 111 In adopting this sentiment, the State Department has asserted its belief that revoking China’s normal trade status would be the “wrong tool” for stemming Chinese nuclear exports to Iran. 112 In discussing his administration’s position on China’s most-favored-nation status, President Clinton made a consistent argument that delinking economic sanctions from China’s political status would maximize the possibility “for long-term sustainable progress” in nuclear

106 See id.
107 See id.
108 See id.
109 See Kellman, supra note 1, at 785.
110 See State Dep’t Fact Sheet, supra note 10.
111 See Meise, supra note 11, at 570.
112 See State Dep’t Fact Sheet, supra note 10.
While the possibility of economic sanctions against China remains a potential weapon in the arsenal of U.S. foreign policy tactics, it is clearly not the current weapon of choice.

Regardless of which political option is chosen, commentators have suggested two underlying objectives for any policy aimed at restricting China’s proliferation activities: (1) a decision be made as to what messages need to be conveyed in subsequent U.S. actions; and (2) concerns giving rise to those messages be made blatantly clear in their conveyance. For example, the Clinton administration indicated in 1995 that it was considering resumption of weapons testing. If adopted, such a policy would seriously undermine American credibility with respect to the NPT. Such testing would send a mixed, if not hypocritical message to Beijing and would make for a poor argument against a worldwide arms buildup. It could also potentially weaken international confidence in American good faith and subsequently lessen international resolve against China’s proliferation activities. Moreover, the potential effect of such international resolve must not be under emphasized. International pressure has substantially influenced Chinese foreign policy in the past and seems to have played a major role in China’s 1992 decision to adopt the NPT.

To date, China’s responses seem to rest on its government’s general concern that the existing international regime be applied consistently and that any restrictions promulgated by the regime be worked out through consultations among all concerned states. This position reflects China’s desire to affirm its sovereignty and to assume a role as a major force in the creation and maintenance of international policy. Consequently, negative unilateral action by the United States would be seen as being one-sided

\[\text{Meise, supra note 11, at 571.}\]
\[\text{See id.}\]
\[\text{See id.}\]
\[\text{See id. at 572.}\]
\[\text{See id. at 573.}\]
\[\text{See Kellman, supra note 1, at 785. Also illustrating the effectiveness of external pressure is that China’s NPT adoption occurred on the heels of the treaty’s adoption by France. At that time, France’s adoption left China as the sole nuclear power yet to embrace the treaty. See Meise, supra note 11, at 569.}\]
\[\text{See Kellman, supra note 1, at 785.}\]
international policy making and would merely serve to highlight the very aspects of the existing international framework to which China objects.

Accordingly, the United States should curtail Chinese proliferation by encouraging China to take a leadership role in the existing international framework. Imputing such leadership capacity would place China in the position of enforcer and would automatically institute an incentive for China's self-adherence to NPT provisions. China would also assume a substantial role in policing the NPT and related frameworks throughout Asia. Doing this would create a further incentive for China to create its own domestic and international nonproliferation laws and would de-emphasize the role of the United States or other non-Asian powers in the creation of localized nonproliferation frameworks. Still, in approaching such an affirmative policy, it would be useful to evaluate first whether China is already moving to embrace a regional leadership position, and if so, to what extent.

VI. Future Prospects for Chinese Nuclear Proliferation

As examined in Part III, the existing international legal order for nuclear energy is comprised of both binding rules and agreements, with many nations adhering to the NPT as a core instrument. The number of countries adhering to the NPT has been growing progressively since the treaty's first adoption in 1968 and currently includes over 180 members. As the NPT adds to its list of party states, the international legal regime for nuclear energy appears to be progressively changing from a collection of nonbinding to binding regulations and standards. As states begin to accept otherwise nonbinding standards for their national legislation, they voluntarily absorb international norms into their domestic legal frameworks.

China appears to be following this pattern. On January 12, 1998, an Agreement for Peaceful Nuclear Cooperation took effect after President Clinton certified that China had finally met the

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120 See Meise, supra note 11, at 576.
121 See Kellman, supra note 1, at 801.
122 See NPT List, supra note 42.
123 See ELBARADEI, supra note 20.
124 See id.
requirements of nonproliferation under U.S. law. This certification, however, did not settle the issue of Chinese nuclear proliferation, and the President's action drew heavy fire from Congress. Senator John Ashcroft of Missouri argued that the President's action prematurely committed the United States to a course of cooperative action with China, basing his position on the belief that recent nonproliferation efforts had been insufficient and did not yet "justify a bill of good health." In explaining his action, the President pointed to a number of recent developments in Chinese nonproliferation policy, which he argued met the legal threshold for determining cooperation.

The developments referred to by President Clinton included the following: (1) China's commitment and continued adherence to its pledge not to provide assistance to nuclear facilities operating outside IAEA safeguards; (2) China's joining the Zangger Committee—a group of major nuclear supplier states that undertakes to further international awareness of particularly dangerous nuclear materials; (3) China's pledge to end all civil nuclear commerce with Iran; (4) China's Council of State's adoption of a system of comprehensive export control regulations for nuclear materials and technologies; and (5) China's growing general involvement and support for the international control of armaments and nonproliferation regimes. The President's arguments were clearly intended to ease the apprehensions of an initially skeptical Congress. Indeed, Congress would ultimately

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125 See Diamond, supra note 2.
127 See Diamond, supra note 2.
128 See id.
129 The Zangger Committee is a group of 31 States that together produce a "trigger list" of materials that fall under control of IAEA safeguards due to their utility in the production of nuclear weapons. See id.; see also ElBaradei, supra note 20 (noting that the Zangger Committee instituted a uniform approach to the implementation of the NPT through its listing of special fissionable materials, the source of these materials and any ancillary materials needed to process or produce such special fissionable materials).
130 See Diamond, supra note 2.
131 See id.
132 See id.
decline to block the President's action—which it could have done by passing a simple resolution of disapproval.\textsuperscript{133}

Regardless of the President's purpose, his arguments describe a pattern of policy changes undertaken by the Chinese Government that in turn suggest a radical departure from China's policies of only a decade before. Until very recently, China had the distinction of being the only nuclear weapon state lacking an explicit policy of nuclear weapons nonproliferation.\textsuperscript{134} Along with France, China's earlier absence from the Zangger Committee had been considered a substantial weakness in the viability of both the Committee and the IAEA system of safeguards.\textsuperscript{135} In joining Zangger and the NPT, China has clearly shown signs of a new respect for international standards relating to nuclear weapons.

The importance of this apparent development cannot be understated. Due to the prior absence of an explicit contrary policy within the Chinese government, observers had believed that Chinese sales of nuclear fuels and technology to Iran and other countries would continue.\textsuperscript{136} Economic incentives coupled with the demonstrated policies of China's government indicated that Chinese proliferation efforts had the potential of turning Iran into a nuclear power.\textsuperscript{137} The fact that China could deliver Iran to the nuclear threshold without violating the NPT had the potential to degrade the NPT and associated frameworks, regardless of the system's relative strengths.\textsuperscript{138} Having achieved nuclear capability, Iran could have simply withdrawn from the NPT and during the three-month withdrawal period, undertaken the final steps toward developing a fully functional nuclear weapons program. In spite of the past successes of the international system, this scenario could have devastating consequences for the NPT-based frameworks. This hypothetical underscores the importance of China's adherence to an international legal framework and illustrates how China could easily become the "linchpin" of the

\textsuperscript{133} See id.
\textsuperscript{134} See Meise, supra note 11, at 558.
\textsuperscript{135} See Kellman, supra note 1, at 807.
\textsuperscript{136} See Meise, supra note 11, at 558.
\textsuperscript{137} See id. at 565.
\textsuperscript{138} See id.
post-Cold War NPT-centered regime.\textsuperscript{139} 

Given that past Chinese policy changes with respect to nonproliferation have largely been the result of sporadic U.S. pressure and that China's future policy will certainly reflect U.S. actions,\textsuperscript{140} prudence on the part of American policy makers is absolutely essential for preventing future nuclear exports to Iran.

\section*{VII. Conclusion}

In undertaking to curtail Chinese nuclear exports to Iran, the United States faces a frustrating situation. As members of the NPT, both China and Iran are precluded from engaging in the trade of nuclear weapons and related materials under international law.\textsuperscript{141} NPT membership, however, also permits and in fact facilitates Chinese exports of nuclear materials and technology to Iran for peaceful purposes.\textsuperscript{142} While the inherent duality of nuclear technology suggests substantial overlap between the peaceful and nonpeaceful nuclear uses of nuclear energy, Iran's NPT entitlements clearly allow for Chinese exports of materials and know-how that could potentially be incorporated into an Iranian nuclear weapons program.\textsuperscript{143} This predicament represents a clear shortcoming of the existing international legal framework relating to nuclear energy. It may also represent a shortcoming in American foreign policy relating to Chinese nuclear proliferation.

Past successes of the current international regime and of American foreign policy may hold the key to the effective curtailing of Chinese nuclear exports to Iran. China's current shift toward greater respect for the existing international legal regime reflects successful measures undertaken by the U.S. government in the past.\textsuperscript{144} Likewise, the shortcomings of current Chinese nonproliferation policy reflect inconsistencies in the application of prior U.S. policies toward China.\textsuperscript{145} U.S. restrictions on the transfer of both nuclear and non-nuclear technology to China have

\begin{footnotes}
\item[139] Id. at 543.
\item[140] See id. at 570.
\item[141] See Kellman, supra note 1, at 801.
\item[142] See Meise, supra note 11, at 565.
\item[143] See id.
\item[144] See Diamond, supra note 2.
\item[145] See Meise, supra note 11, at 570.
\end{footnotes}
proven effective in the past, while the pursuit of economic sanctions has resulted in less desirable outcomes.\(^{146}\) Moreover, the most effective U.S. policies are those that respect China’s nuclear dealings and encourage greater Chinese participation and leadership in the international legal regime relating to nuclear energy.\(^{147}\) The foundation of a binding and mutually agreeable solution to the problem of China’s proliferation activities has been established. It remains to be seen, however, whether this solution will prevent Iran from entering the growing club of nuclear powers.

\(^{146}\) See generally Kellman, supra note 1, at 843 (detailing types and effects of economic penalties employed).

\(^{147}\) See id.