The Jus Cogens Dimensions of Nuclear Technology

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Recommended Citation
Available at: http://scholarship.law.cornell.edu/cilj/vol13/iss1/3
Public concern and debate over the role of nuclear power dramatically increased in the United States in the past year. Incidents such as that at Three Mile Island focused attention on the problems of nuclear technology, while the OPEC oil cartel's price increases exacerbated our precarious energy situation. The claims and threats made by both sides of the nuclear argument have done more to obscure than to clarify the role of nuclear power in our future energy policy. Only an analysis of its risks and benefits, together with a comparison with proven alternatives, can serve as a rational basis for decisions on the future of nuclear power.

This analysis and comparison should proceed on a global basis because other nations, unlike the United States, may be unable to forego the nuclear option. Americans tend to forget that our ample coal supplies and other energy resources are not shared by many nations that also face the global oil shortage. In the absence of proven alternatives to oil or nuclear power, many industrial and third world nations are seriously considering the nuclear option. In light of this worldwide energy situation, the problems of nuclear safety, waste disposal, and weapons proliferation cannot be analyzed on a purely national basis.

Nuclear energy will do more harm than good if its use as a power source increases the threat of nuclear war. The potential for nuclear weapons proliferation resulting from the admitted lack of effective safeguards on peaceful power technology creates a situation that is dangerous to international peace and order, morally unjustifiable, and contrary to world opinion and common good. In a very practical sense, the sale of nuclear materials and technology is equivalent to the sale of nuclear weapons or weapons potential. As international nuclear trade increases, so does the risk of nuclear weapons proliferation.

This Note will examine the nuclear weapons proliferation problem that is coupled with the development and sale of peaceful nuclear technol-

1. The problems of nuclear plant safety and waste disposal are not considered in this Note except to the extent that they contribute to the problem of weapons proliferation. The safety and disposal issues are not proposed as *jus cogens* subjects.
ogy, and its relation to the treaty law doctrine of "jus cogens." In its basic form, this doctrine posits the existence of certain fundamental norms of international law that states cannot vary by agreement.

Characterization of a jus cogens norm is a difficult and controversial task because no single accepted functional definition of this concept exists. Nonetheless, four criteria capturing the essence of this doctrine can be derived from the works of leading publicists. These criteria are: (1) a foundation in morality; (2) importance to international peace and order; (3) general acceptance in the international community; and (4) serving global interests rather than those of an individual state. For the purposes of this Note, this combination of tests need not be absolutely precise and it is not offered as such. These criteria yield exclusive results, however, because they incorporate all of the essential elements of jus cogens norms.

This Note will first demonstrate the relationship between peaceful nuclear technology and nuclear weapons. Then the concept of jus cogens and the criteria by which a jus cogens norm can be identified will be discussed. Next, these criteria will be applied to the proposed jus cogens norm of nuclear weapons nonproliferation. Finally, state practice will be examined to check the results of the theoretical analysis.

I

PEACEFUL NUCLEAR TECHNOLOGY AND NUCLEAR WEAPONS PROLIFERATION

A. THE EMERGING IMPORTANCE OF NUCLEAR POWER

The energy shortage is a global problem that presents few options to a world highly dependent on oil. Nations lacking significant proven coal reserves and oil deposits need alternatives to expensive and limited oil supplies immediately, but nuclear energy is the only proven power source currently available. Nuclear power is thus seen as an escape from escalating

4. See authorities cited in note 3 supra.
5. The difficulties of converting solar energy into electricity presently limit the use of solar power, potentially a major energy source. Solar energy will not be capable of replacing current electricity-generating methods for at least several decades. N.Y. Times, Feb. 1, 1979, at A7, col. 1.
oil prices\(^6\) and increasing balance of payments pressures\(^7\) that provides a domestic source\(^8\) of the energy required for stable economic development. In the near future, the relative cost and availability of energy to different nations will become one of the most important determinants of their economic performances. Thus the pressure is increasing on energy-poor nations to turn to the ready technology of nuclear power.

Third world nations seek greater energy supplies to facilitate their entrance into global commerce,\(^9\) but these developing nations are those most injured by oil price increases.\(^10\) An official of the International Monetary Fund recently noted that the dramatic increase in the price of oil has created an unmanageable debt burden for some developing countries.\(^11\) In addition to the fiscal problems, supplies of fuel, fertilizer, and food in developing nations will decrease as the industrial nations compete more successfully for available energy resources. At the May 1979 UNCTAD Conference\(^12\) these problems were raised, and the concern and commitment of Western nations were reaffirmed.\(^13\) West German Chancellor Helmut Schmidt called for the increased use of nuclear power in less developed nations as a means of bridging the growing gap between those nations and the industrial powers.\(^14\) The clear trend is toward the expanding use of nuclear power in the third world.\(^15\)

Western Europe faces a severe energy crisis through the remainder of

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\(^7\) The Organization for Economic Cooperation and Development (OECD) recently forecasted economic stagnation, slower growth, and higher unemployment and inflation rates for its member nations because of 1979 oil price increases. The 24 OECD member nations now have an aggregate balance of payments deficit of $30 to $40 billion, largely because of oil costs. The world’s developing nations face an even larger collective deficit of about $50 billion. *Id.*

\(^8\) Because raw nuclear fuels are not found in every nation, some importation must occur. But use of the breeder reactors currently under development could virtually eliminate dependence on imported fuels. After the initial importation of the enriched uranium or plutonium fuels, breeder reactors “could in time provide energy comparatively independent of foreign influence.” J. Gray, M. Kratzer, K. Leslie, H. Paige & S. Shontzis, *International Cooperation on Breeder Reactors* 4-9 (1978) [hereinafter cited as *J. Gray*].


\(^10\) Kenya is typical of the developing nations for which higher oil prices mean slower development. *Id.*, Aug. 27, 1979, at A1, col. 1.

\(^11\) *Id.*, July 6, 1979, at D1, col. 1 (remarks of Jacques de Larosière, Managing Director, International Monetary Fund).

\(^12\) The fifth session of the United Nations Conference on Trade and Development convened in Manila on May 7, 1979. *Id.*, May 7, 1979, at A5, col. 1.

\(^13\) Garret FitzGerald, former Foreign Minister of Ireland, expressed this commitment as “the obligations in justice that rich peoples owe poor peoples.” *Id.*

\(^14\) *Id.*, June 8, 1979, at B6, col. 1.

\(^15\) *Id.*, May 7, 1979, at A1, col. 1.
this century.\textsuperscript{16} Although West Germany, with abundant coal reserves, elevated the use of German coal to the position of first national priority for the 1980's,\textsuperscript{17} nuclear power figures prominently in European planning. The French Minister of Industry and Scientific Research stated that the development of the French fast breeder reactor is necessary for the economic survival of his nation.\textsuperscript{18} Similarly, Western nations, including the United States, set high nuclear power goals at the 1978 Bonn economic conference. The communique following the conference stated, "[T]he further development of nuclear energy is essential and the reduction in the execution of nuclear power programs has to be reversed."\textsuperscript{19} The Common Market's Energy Minister added, "[W]e have no alternative."\textsuperscript{20}

The Comecon nations find that they can no longer look to the Soviet Union for their oil. In a dramatic turnabout, the U.S.S.R., once a leading oil producer, is expected to begin importing oil soon.\textsuperscript{21} Consequently, the Comecon nations have adopted large-scale nuclear plans.\textsuperscript{22} By 1990, these nations hope to meet one-half of their energy needs through the use of nuclear power.\textsuperscript{23} In assessing his country's energy situation, the president of the Soviet Academy of Sciences called the broad development of nuclear energy, including the use of breeder reactors, "the only sensible way of avoiding an energy crisis."\textsuperscript{24}

Almost every energy-importing nation views the use of nuclear power as necessary for the prevention of economic disruption. By the year 2000, the International Atomic Energy Agency expects thirty-five to forty-five percent of the world's electricity to be generated by nuclear power.\textsuperscript{25} Few

\textsuperscript{16} The pressure exerted on Western European economies by increased oil prices and decreasing oil supplies is well-documented. \textit{See, e.g., id.}, Aug. 9, 1979, at D5, col. 3; \textit{id.}, July 19, 1979, at D3, col. 1; \textit{id.}, July 6, 1979, at D1, col. 1; \textit{id.}, June 29, 1979, at D4, cols. 1, 5.

\textsuperscript{17} West German Chancellor Helmut Schmidt explained the purpose of this proposed shift from oil to coal as "allow[ing] us to be independent from [sic] foreign decisions." \textit{Id.}, July 5, 1979, at D1, col. 3. West German coal reserves are expected to last at least 100 years at the current rate of consumption. \textit{Id.}, at D5, col. 3.

\textsuperscript{18} M. Rene Monory tied the development of French nuclear power plants to "the life and comfort of the French people" and warned that without them, "France will become a little nation." The Times (London), Aug. 3, 1977, at 6, col. e.

\textsuperscript{19} \textit{N.Y. Times}, May 7, 1979, at A1, col. 1.

\textsuperscript{20} \textit{Id.}

\textsuperscript{21} 1978 \textit{LLOYD'S MAR. AND COM. L.Q.} 189; \textit{N.Y. Times}, July 30, 1979, at D1, col. 3.

\textsuperscript{22} The Comecon nations recently signed a three-year pact designed to allow each to specialize in one phase of nuclear energy development. The Soviet Union and Czechoslovakia were assigned the task of nuclear reactor construction, but the roles of the other eight nations were not disclosed. \textit{Boston Globe}, June 29, 1979, at 8, col. 5.

\textsuperscript{23} 1978 \textit{LLOYD'S}, \textit{supra} note 21, at 189.

\textsuperscript{24} \textit{N.Y. Times}, Apr. 11, 1979, at A19, col. 3. The current five-year plan (ending in 1980) set the goal of generating seven percent of the nation's electricity in nuclear power plants. \textit{Id.}

\textsuperscript{25} \textit{Id.}, May 7, 1979, at A1, col. 1.
nations, however, possess the technological or economic resources necessary for the development of a domestic nuclear power industry. For the majority of nations, international nuclear trade offers a solution.

B. INTERNATIONAL NUCLEAR TRADE

Sales of nuclear technology and materials are now commonplace. Hundreds of nuclear power plants are now under construction around the world by firms from the United States, the Soviet Union, and thirteen other nations. France recently contracted to sell two nuclear plants using U.S. technology to China. Major nuclear deals, such as the £500 million U.K.-Japan contract for the transportation and reprocessing of spent Japanese nuclear fuels, are becoming more frequent.

Despite potential problems of health, safety, waste disposal, terrorism, and civil liberties, trade in nuclear technology has become big business. All previous international nuclear transfers, however, were based on the fundamental presumption that the weapons proliferation safeguards were adequate. That presumption has proven false as the integral con-

28. NUCLEAR NEWS, supra note 26, at 67-85. These nations are Belgium, Brazil, Canada, France, India, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and West Germany.
32. If nuclear power is to become a long-term solution to the world's energy problem, it must achieve acceptable standards on all three of its problems: safety, waste disposal, and weapons proliferation. The standards set for nuclear energy should be reasonably related to those for alternative fuels, including coal. A comparison suggests that nuclear power is preferable to coal on the issues of health, safety, and waste disposal. See AUDUBON, Nov. 1978, at 69-70; N.Y. Times, July 10, 1979, at B8, col. 5; id., Nov. 20, 1978, at D1, col. 1; G. Handl, supra note 31, at 206-325.
33. Britons have expressed fears that increased nuclear production will require stiff security measures to prevent and combat terrorism at the expense of civil liberties and human rights. The Times (London), Mar. 7, 1978, at 17, col. b. Testifying before a congressional committee, an American corporate official warned that the government might react to terrorist threats against nuclear power plants in ways "that would generate a great deal of very oppressive searching and wiretapping and invasion of privacy." Oversight Hearings on Nuclear Energy—International Proliferation of Nuclear Technology: Hearings Before the Subcomm. on Energy and the Environment of the House Comm. on Interior and Insular Affairs, 94th Cong., 1st Sess. (Pt. 3) 96 (1975) (testimony of Theodore Taylor, Chairman, International Research and Technology Div., General Research Corp.).
34. Nuclear export policies illustrate this fundamental presumption that the prescribed
connection between nuclear technology and nuclear weapons potential comes to light.35

C. INADEQUACY OF DIVERSION SAFEGUARDS

Diversion of fissionable nuclear material from power production to weapons manufacture already poses a serious threat to international order,36 but the risk of such illicit manufacture will greatly increase with the advent of breeder reactors.37 This risk arises from the inadequacy of the safeguards38 presently employed in connection with nuclear exports. The 233 commercial nuclear power plants already built, as well as the 323 under construction,39 provide not only sources of materials for diversion to illicit national and individual projects, but also tempting targets for terrorist activities. The present safeguards can completely prevent neither the sur-

controls and guarantees are sufficient to prevent proliferation. For example, French President Giscard d'Estaing once said, "We must be very careful not to increase the risk of nuclear danger in the world. . . . France will never sell . . . an installation to any country that will not accept all the controls and guarantees that have been decided for such projects." U.S. ARMS CONTROL AND DISARMAMENT AGENCY, DOCUMENTS ON DISARMAMENT 323 (1976) [hereinafter cited as 1976 DISARMAMENT DOCUMENTS] (extract of interview at the National Press Club, May 20, 1976).

35. The fallacy of the presumption of effective safeguards will have dramatic effects on existing international nuclear supply contracts. The parties may be relieved of their contractual obligations under the international legal doctrines of mistake and rebus sic stantibus. See note 159 infra; Szegilongi, Unilateral Revisions of International Nuclear Supply Arrangements, 12 INT'L LAW. 857, 860 (1978). The jus cogens prohibition of nuclear weapons proliferation propounded in this Note would achieve the same result.


37. The enriched fuel used in the breeder reactor fuel cycle is suitable for weapons production without further processing whereas nuclear fuels presently used require expensive reprocessing before reaching this stage. See NUCLEAR PROLIFERATION, supra note 31, at 214-17; M. WILLRICH & T. TAYLOR, supra note 36, at 15.

38. "Safeguards" is a generic term encompassing a variety of technological, procedural, and physical measures designed to thwart theft or other diversion of delicate materials. See NUCLEAR PROLIFERATION, supra note 31, at 227 (defining "safeguards" in the international context as "systems designed to detect the diversion or theft of nuclear materials that could be used in weapons or terror devices," and in the domestic context as "physical protection of nuclear facilities against sabotage"); Smyth, The Need for International Safeguards, in INTERNATIONAL SAFEGUARDS, supra note 36, at 9 (defining "safeguards" to include "physical protection such as vaults, locks, and guards" and "[a]counting methods supplemented by sampling, analysis, and inspection").

The relative merits of different systems of safeguards is a technical subject beyond the scope of this Note. At a minimum, "a nuclear safeguards system as a whole should perform four interrelated functions: 1. prevention of theft; 2. detection of theft; 3. recovery of stolen material; 4. response to threats of nuclear violence." M. WILLRICH & T. TAYLOR, supra note 36, at 125.

repetitious diversion nor the theft of nuclear materials.\textsuperscript{40}

A recent congressional study concluded, "Without doubt, the potential for proliferation depends upon the amount and conditions of future nuclear trade among nations. The more nuclear materials that move in international commerce, the greater the probability that some can be successfully stolen or diverted—unless extraordinary precautionary measures are taken."\textsuperscript{41} Willrich and Taylor, in their evaluation of nuclear risks and safeguards, reached a similar conclusion: "Without effective safeguards to prevent nuclear theft, the development of nuclear power will create substantial risks to the security and safety of the American people and people generally."\textsuperscript{42}

Just as nuclear power plants need not inevitably lead to nuclear weapons, a nation determined to obtain nuclear weapons would not be stopped by the absence of such plants. The diversion of fissile materials, an expensive and dangerous act, is alarmingly easy. Once the fissile material is available, the actual bomb construction is a relatively simple process.\textsuperscript{43}

The low-enriched uranium fuel used in first-generation nuclear power plants is unsuitable for nuclear weapons.\textsuperscript{44} But when this fuel is used in atomic reactions, fissile plutonium is produced.\textsuperscript{45} After separation from the spent fuel rods, plutonium is an ideal raw material for weapons.\textsuperscript{46} A recent Oak Ridge study on the feasibility of a "quick and dirty" reprocessing plant for extracting the plutonium from spent reactor fuel rods concluded that a "bandit nation" could have such a plant in operation in six months and produce enough plutonium for ten bombs per month.\textsuperscript{47} Given the relatively simple mechanics of bomb construction, it is unavoidable that a nation that legitimately develops or imports nuclear technology will approach weapons capability without necessarily desiring to do so. Once the potential is established, such a nation is only a political decision away from weapons manufacture. Perceived threats to national security and desires for "prestige" tend to push it towards weapons development.\textsuperscript{48}

\textsuperscript{40} For example, Israel is widely suspected of hijacking 200 tons of uranium in 1968. This fuel reportedly has been converted into weapons-grade plutonium at the Dimona reactor. The Times (London), June 25, 1978, at 1, col. b.

\textsuperscript{41} NUCLEAR PROLIFERATION, supra note 31, at 193.

\textsuperscript{42} M. WILLRICH & T. TAYLOR, supra note 36, at 169.

\textsuperscript{43} Id. at 20-21.

\textsuperscript{44} Id. at 16-17. Highly enriched uranium fuel used in research reactors need not undergo nuclear modification or purification and is by itself an excellent weapons source. Id.

\textsuperscript{45} Id. at 12.

\textsuperscript{46} Id. at 15.

\textsuperscript{47} This study is described in The Times (London), Mar. 5, 1978, at 2, col. c.

\textsuperscript{48} For example, one of the factors underlying India's refusal to sign the Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature, July 1, 1968, 21 U.S.T. 483, T.I.A.S. No. 6839, 729 U.N.T.S. 161, is the threatened loss of prestige resulting from this affir-
The connection between nuclear power and weapons proliferation will grow stronger in the future with the introduction of breeder reactors. Because the world's supply of uranium for conventional reactors is expected to last only about as long as its oil supply, pressure is growing for the development of breeder reactors. These plants could use nuclear fuels many times more efficiently than conventional nuclear plants. This type of plant requires reprocessing of spent fuels and uses fuel elements of a fissile concentration sufficient for bomb production. Thus the difficult and expensive enrichment step in illicit bomb production can be avoided by acquiring breeder reactor fuel.

France and the Soviet Union are vigorously pursuing their breeder reactor programs. Other nations are not far behind. Because of the increased weapons proliferation danger associated with such a "plutonium economy," President Carter hopes to defer development of breeder reactors and opposes the reprocessing of nuclear fuel.

In the face of the increasing proliferation problem, the International Atomic Energy Agency (IAEA), the organization charged with the responsibility of overseeing international nuclear safeguards, admits that its controls are inadequate to prevent or discover the illicit diversion of significant quantities of nuclear fuels. The U.S. system of safeguards has been condemned as "incomplete at this time" because of the lack of sufficient "physical protection measures." The recent discovery of the disappearance of nonproliferation...
ance of a significant amount of highly enriched uranium from a Tennessee facility confirms this assessment.\textsuperscript{58}

Present safeguards cannot adequately protect sensitive materials against illicit use. Until drastic changes are made to upgrade their effectiveness—whether by placing nuclear facilities "under some enhanced form of international control,"\textsuperscript{59} by the discovery of a new technical process like Civex,\textsuperscript{60} or by some other scheme—the integral link between nuclear power and weapons proliferation will remain. So long as this is the case, the sale of nuclear power technology and materials includes the sale of nuclear weapons potential.

\section*{II}

\textbf{JUS COGENS}

The basic proposition of \textit{jus cogens} is the existence of certain fundamental legal norms that individual states may not vary by agreement.\textsuperscript{61} Thus, an act or agreement in violation of a \textit{jus cogens} norm is illegal.\textsuperscript{62}

Although examples are proffered of \textit{jus cogens} norms, such as the prohibitions of slavery and genocide,\textsuperscript{63} as well as conclusive attempts at

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{58}] N.Y. Times, Sept. 19, 1979, at A20, col. 3.
\item[\textsuperscript{59}] J. Gray, supra note 8, at 6.
\item[\textsuperscript{60}] The Civex process was announced with some fanfare in February 1978. See N.Y. Times, Feb. 28, 1978, at A1, col. 6. The process would return purified uranium to the "blanket" area surrounding the core of a breeder reactor. This uranium would mix with the plutonium in the core to maintain a concentration of approximately 20% plutonium and 80% uranium and other by-products. By maintaining a concentration of plutonium lower than the approximately 60% required for weapons production, the process would avoid the production of large amounts of plutonium suitable for diversion to weapons manufacture. \textit{Id.} The process has been criticized as adding little to the presently accepted safeguards because it neither protects spent nuclear fuel nor sufficiently insulates the plutonium from potential diversion. 124 CONG. REC. E935 (daily ed. Mar. 1, 1978) (remarks of Rep. Bingham).
\item[\textsuperscript{61}] See note 3 supra and accompanying text. If two or more nations are powerless to vary a fundamental norm by virtue of their united wills as expressed in an agreement, it logically follows that one nation would have even less power to escape the compulsion of that norm through unilateral action. In this respect, \textit{jus cogens} is the international law analogue of domestic "public policy" or "ordre public." Ian Sinclair, citing an earlier study by Krystina Marek, demonstrated that the conditions necessary for the effective application of public policy in municipal law exist in international law, if at all, only in rudimentary form. I. Sinclair, \textit{supra} note 2, at 114; see also J. Sztucki, \textit{supra} note 3, at 8-10.
\item[\textsuperscript{63}] See, e.g., I. Sinclair, \textit{supra} note 2, at 121-24; J. Sztucki, \textit{supra} note 3, at 82-84.
\end{enumerate}
\end{footnotesize}
definition, no comprehensive definition of the doctrine enjoys universal acceptance. Sir Humphrey Waldock, the fourth and final Rapporteur of the Vienna Conference and current President of the International Court of Justice, stated, "[T]here is not as yet any generally accepted criterion by which to identify a general rule of international law as having the character of jus cogens."

This deficiency leads to the most damning criticism of the doctrine: in the absence of an accepted definition against which to test an alleged jus cogens norm, the doctrine will suffer abuse to the detriment of valid treaty obligations.

Jus cogens norms are generally seen as those most basic to the international community, such as the principle of pacta sunt servanda and the right of a nation to self-defense. Sinclair tested the validity of the jus cogens principle by questioning whether a treaty contravening certain postulated jus cogens norms would be enforced by an international court. Treaties to commit genocide, to foster slavery, or to commit armed aggression would be found illegal and, therefore, void.

All parties to the Vienna Conference, an attempt to codify international treaty law in the Vienna Convention on the Law of Treaties, accepted the basic concept of jus cogens. Despite that basic agreement, however, jus cogens remained the most controversial substantive issue of the Conference. The parties attempted to define it by establishing criteria for jus cogens norms and by agreeing on established rules of international law that possess jus cogens character. The text of article 53 reads:

Treaties conflicting with a peremptory norm of general international law (jus cogens).

A treaty is void if, at the time of its conclusion, it conflicts with a peremptory norm of general international law. For the purposes of the present

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64. The most notable of these conclusory definitions is that embodied in the Vienna Convention, supra note 62, art. 53. See text accompanying note 74 infra.
66. For example, if one state sought to escape its treaty obligation, it could simply classify that obligation as an interference with its domestic jurisdiction and cite a norm prohibiting such interference as jus cogens. See Schwarzenberger, International Jus Cogens?, 43 TEXAS L. REV. 455, 470 (1965).
68. I. SINCLAIR, supra note 2, at 129.
69. Id.
70. The Vienna Conference held two sessions in 1968-69.
71. See note 62 supra.
Convention, a peremptory norm of general international law is a norm accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.\textsuperscript{74}

This formulation is largely unsatisfactory because it provides neither criteria nor examples of \textit{jus cogens} norms. It is conclusory, dealing with the consequences of a \textit{jus cogens} norm rather than its prerequisites. The task of defining parameters to identify peremptory norms of international law remains.

Although the Vienna Convention was the first multilateral instrument treating the concept of \textit{jus cogens}, publicists have devoted considerable attention to the doctrine.\textsuperscript{75} It is possible to distill the mass of theoretical proposals into the four \textit{jus cogens} criteria discussed in this Note.

Ian Sinclair's incisive analysis of the \textit{jus cogens} controversy traces the doctrine's roots to the fundamental conflict between natural and positive law.\textsuperscript{76} Professor Verdross' articles on \textit{jus cogens} and Professor Georg Schwarzenberger's responses demonstrate this conflict. Verdross, who took a leading position on \textit{jus cogens} in his 1937 article,\textsuperscript{77} viewed \textit{jus cogens} as a moral principle in the leading rank of a hierarchy of norms.\textsuperscript{78} In contrast, Schwarzenberger argued that every previously asserted peremptory norm was based in traditional positive manifestations of international law.\textsuperscript{79} Schwarzenberger further argued that permitting the doctrine to develop as formlessly as it had would allow bad faith contentions of \textit{jus cogens} to the detriment of otherwise valid agreements and the deterioration of international law in general.\textsuperscript{80} By adopting functional criteria that incorporate

\textsuperscript{74} Vienna Convention, \textit{supra} note 62, art. 53.
\textsuperscript{75} See works cited in notes 2-3 \textit{supra}.
\textsuperscript{76} I. SINCLAIR, \textit{supra} note 2, at 113.
\textsuperscript{77} See note 3 \textit{supra}.
\textsuperscript{78} Id. In a similar vein, Lord McNair wrote:

\begin{quote}
There are... many rules of customary international law which stand in a higher category and which cannot be set aside or modified by contracting States... They are rules which have been accepted, either expressly by treaty or tacitly by custom, as being necessary to protect the public interests of the society of States or to maintain the standards of public morality recognized by them.
\end{quote}

\textsuperscript{79} G. SCHWARZENBERGER, \textit{supra} note 3, at 29-56.
\textsuperscript{80} Schwarzenberger, \textit{supra} note 66, at 470; see note 66 \textit{supra}.

In taking a middle position, Sinclair illustrated the realities and limitations of the \textit{jus cogens} concept:

Whatever their doctrinal point of departure, the majority of jurists would... concede... that there is little or no evidence in positive international law for the concept... of \textit{jus cogens}. But they would be constrained to admit that the validity of a treaty... to wage a war of aggression... or to engage in acts of... force against a third State could not be upheld; and, having made this admission, they may be taken to
the essential elements and meet the justified criticisms of the *jus cogens* concept, this Note will avoid the quagmire of the naturalist-positivist controversy.

A. THE FOUR *JUS COGENS* CRITERIA

1. A Foundation in Morality

The first criterion requires that the proposed *jus cogens* norm have a moral basis. At an early date, Professor Verdross claimed that an essential element of the doctrine of *jus cogens* was the prohibition against "concluding treaties contra bonos mores." He observed that every legal system regulates the "rational and moral coexistence of the members of a community," and argued that the international legal system will protect shared moral concepts essential to ordered relationships in the community of nations. The *jus cogens* concept thus serves to protect the "ethical minimum recognized by all the states of the international community."

Representatives to the Vienna Conference and one Special Rapporteur agreed that a *jus cogens* rule must have a moral basis. Similarly, Sztucki's summary of leading publicists' views on *jus cogens*

have accepted the principle that there may exist norms of international law so fundamental to the maintenance of an international legal order that a treaty concluded in violation of them is a nullity.

. . . [I]n the present state of international society, the concept of an "international legal order" of hierarchically superior norms binding all States is only just beginning to emerge. . . . [An international jurist] would test any assertion that a particular rule constitutes a norm of *jus cogens* by reference to the evidence for its acceptance as such by the international community as a whole, and [he] would require that the burden of proof should be discharged by those who allege the *jus cogens* character of the rule.

I. SINCLAIR, supra note 2, at 129-30.
82. Id.
83. Id. at 574.
84. M. Lucien Yapobi, Ivory Coast Representative to the Vienna Conference, viewed *jus cogens* as "introducing into international law the essential concept of morality on which the fundamental principle of good faith was also based." Official Records, supra note 73, at 321.
85. Sir Gerald Fitzmaurice, who succeeded Lauterpacht as Special Rapporteur in 1955, echoed Verdross in concluding:

It is not possible—nor for present purposes necessary—to state exhaustively what are the rules of international law that have the character of *jus cogens*, but a feature common to them . . . is that they involve not only legal rules but considerations of morals and of international good order.


86. The problems inherent in defining "morality" need not be addressed here. The term is used in its intuitive sense and none of the examples of *jus cogens* norms considered in this Note offer any difficulty in their classification as moral issues. The problems that might result from self-serving use of this term by nations seeking to advance a particular rule as a *jus cogens* norm are addressed by the third and fourth criteria. See text accompanying notes 93-101 infra.
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repeatedly stresses the central importance of morality and ethics. Lord McNair's formulation is a leading example of the moral element of *jus cogens*.

2. Importance to International Peace and Order

The second criterion evaluates the importance of the proposed norm to international peace and order. Verdross maintained that these peremptory norms govern relationships within the international community, a role that makes *jus cogens* norms central to international order. Other publicists have agreed on this aspect of a *jus cogens* norm. Sztucki cited descriptions of *jus cogens* as "fundamental constitutional rules of international legal order," and "principles of social organization and stability." Sinclair offered *pacta sunt servanda* as an example of this type of indispensable international norm.

3. General Acceptance in the International Community

The third criterion, unlike the first two, is a practical and more objective test. Rather than focusing on the subject matter of the proposed norm, this criterion evaluates its acceptance by the international community. Although the binding force of a *jus cogens* norm must ultimately derive from right and reason based on the current needs of the international community, the difficulty of objectively evaluating these aspects of emerging norms favors the addition of this practical test. Moreover, its retrospective orientation serves as a check on the prospective tests of the first two criteria. A fundamental moral precept important to world order as identified by the first two criteria should be widely accepted, and it is reasonable to require a demonstration of such general acceptance before classifying it as a *jus cogens* norm.

An additional advantage of this criterion is that it answers the valid fears of an amorphous *jus cogens* doctrine expressed by Schwarzenberger. By requiring evidence of general international acceptance, it indirectly deters self-serving claims of *jus cogens* that could threaten the "sanctity of the pledged word."

This type of retrospective test is the only one prescribed by the Vienna

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87. See J. Sztucki, *supra* note 3, at 77-79, 82-84.
88. See note 78 supra.
89. See text accompanying note 82 supra.
90. J. Sztucki, *supra* note 3, at 78 (describing an earlier study by Menzel).
91. Id. (describing an earlier study by Rolin).
93. See text accompanying note 80 supra; note 66 supra.
Convention. Article 53 requires that a *jus cogens* norm be "accepted and recognized by the international community of States as a whole." This vague language is susceptible to a rigid interpretation that would unnecessarily restrict the application of the doctrine. Although article 53 does not require universal acceptance, it does not indicate the level of international recognition that would be deemed sufficient. Because general acceptance is both a consequence of and a prerequisite to the *jus cogens* character of a rule, proposed *jus cogens* norms should not be measured against an inflexible level of acceptance. The degree of recognition required should be allowed to vary inversely with the strength of a norm's showing on the other criteria. As a guideline, the proposed norm should acquire international acceptance equivalent to that enjoyed by the norms prohibiting slavery, genocide, and aggression. The required level of acceptance, however, should be less than that required for the establishment of customary law.

4. _Serving Global Interests Rather than those of an Individual State_

The fourth criterion, sometimes advanced as the criterion of *jus cogens* norms, incorporates important elements of the first three criteria. In the

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96. The phrase "international community of States as a whole" in article 53 is difficult to define. See Rao, *Jus Cogens and the Vienna Convention on the Law of Treaties*, 14 _Indian J. Int'L L._ 362 (1974). Delegates to the Vienna Conference could not agree on the level of acceptance required. Rao observes that "insistence on absolutely unanimous acceptance of a peremptory norm is to practically exclude all possibility of its coming into existence." _Id._ at 381. Rao concludes that "it is sufficient to bring a peremptory norm into existence if it is accepted by a substantial majority of States representing the principal legal systems of the world." _Id._
97. Customary international law emphasizes states' consent whereas *jus cogens* rules, by definition, cannot be disclaimed by agreement. This Note adopts this third criterion as a confirmation of the other criteria to meet valid criticisms of the abstract concept of *jus cogens* and not as an essential element of *jus cogens* norms in itself. The rigor of these criteria can only be improved by adding this requirement.

Nonetheless, ascertaining the degree of acceptance required for *jus cogens* is a difficult task. One might assume that a *jus cogens* norm that has some fundamental importance and, according to the first and second criteria, deals with an important moral issue affecting the international community should enjoy a degree of acceptance at least equal to that required of rules of customary law, which generally deal with more mundane matters of mutual convenience. History, however, does not bear out that assumption. Until recently, see note 106 *infra*, the three mile territorial sea limit, which is no more than a rule of convenience, was more carefully observed than the prohibitions of slavery, genocide, and aggression.

Sztucki warns that universal acceptance alone does not indicate *jus cogens* character. J. _Sztucki, supra_ note 3, at 75. For example, the International Telecommunication Convention, *done* Oct. 25, 1973, 28 U.S.T. 2495, T.I.A.S. No. 8572, enjoys such acceptance, but no one has suggested it as a *jus cogens* norm.

98. See Verdross, 60 _Am. J. Int'L L._, *supra* note 3, at 58. Verdross wrote, "The criterion for these rules consists in the fact that they do not exist to satisfy the needs of the individual states but the higher interest of the whole international community." _Id._ Lavu Mulimba, Zambian Representative to the Vienna Conference, "agreed with Professor Verdross that the
Barcelona Traction case, the International Court of Justice endorsed a principle similar to this fourth criterion. The Court spoke of "the obligations of a State towards the international community as a whole. . . . [which] [b]y their very nature . . . are the concern of all States."99 In the earlier Genocide Convention case, the Court similarly observed, "In such a convention the contracting States do not have any interests of their own; they merely have, one and all, a common interest, namely, the accomplishment of those high purposes . . . of the convention."100

This criterion of a paramount interest in the international well-being is related to the third criterion. A norm serving an overriding international interest should enjoy general acceptance. But the fourth criterion more directly eliminates self-serving claims of jus cogens by emphasizing the requirement that such norms be directed towards the common good of the international community.101

B. AN EMPIRICAL REVIEW OF THE CRITERIA

Regardless of their theoretical justifications or endorsements by publicists, the four criteria must yield proper results if they are to have any practical value. For the purposes of this Note, it is crucial that only jus
cogens norms satisfy the criteria. An empirical evaluation of the criteria demonstrates their accuracy and exclusivity.

The postulated jus cogens norms prohibiting slavery, genocide, and aggression satisfy each criteria. Each prohibition contains a dominating moral element and affects international peace and order. Each is accepted by the international community. These norms also serve interests of the international community as a whole rather than those of any individual state. Thus all four jus cogens criteria are met.

The more important test of these criteria is their effectiveness in separating generally accepted rules of international law from jus cogens norms. For example, the concept of freedom of the seas satisfies the third and fourth criteria by virtue of its general acceptance by the international community and focus on global rather than national interests. But freedom of the seas, although a hallowed principle that has been cited as a jus cogens norm, is more a rule of convenience than a moral imperative. Although this concept arguably is important to international peace and order, its recent erosion through unilateral assertions of jurisdiction over the seas within 200 miles of shore is widely accepted. Thus the first, and possibly the second, proposed criteria require the rejection of this rule as a jus cogens norm. Similarly, the prohibition of murder is eliminated as a jus cogens norm. Although this rule is undoubtedly founded in morality, generally accepted by the international community, and in the best interests of the global community, it does not satisfy the second criterion. Rarely does an individual murder affect the peace and order of the society of nations.

The four criteria outlined, although not absolutely precise, provide a rigorous test of the jus cogens character of any purportedly compelling norm. The next section applies these criteria to the rule prohibiting nuclear weapons proliferation to determine that rule’s status.


104. Although international slavery, genocide, and aggression threaten international peace and order, the effects of purely intranational conduct in violation of these norms is less obvious. The recent Cambodian situation illustrates how internal genocide can disrupt international stability. The aggressive reactions of first Vietnam, and then China, created international turmoil. Similarly, an established domestic system of slavery would provoke international opposition. Thus domestic conduct can be ruled illegal if it violates a jus cogens norm.

105. See J. SZTUCKI, supra note 3, at 84.

NUCLEAR WEAPONS NONPROLIFERATION AND THE JUS COGENS CRITERIA

In the most fundamental sense, nuclear weapons nonproliferation is a moral issue within the parameters of the first jus cogens criteria. Nuclear weapons' awesome destructive power furnishes the necessary moral element. In 1961, the U.N. General Assembly resolved that the use of nuclear weapons was a violation of the letter and the spirit of the U.N. Charter and a crime against mankind.\(^ {107} \)

The importance of nonproliferation to international peace and order satisfies the second criterion. The spread of nuclear weapons both disturbs international balances of power and causes nations that perceive a threat to their security to examine their own nuclear potential. After India demonstrated its nuclear weapons capability in 1974, its rivals, particularly Pakistan, felt threatened and sought to balance this new instability.\(^ {108} \) The Pakistani scheme to buy nuclear technology capable of diversion to weapons production was subsequently uncovered in considerable detail.\(^ {109} \) Taiwan, in the wake of shifting U.S. relations, might seek to acquire nuclear weapons to ensure its security.\(^ {110} \) It is widely believed that Israel\(^ {111} \) and perhaps South Africa\(^ {112} \) possess nuclear weapons. If any of these nations successfully demonstrates nuclear weapons capability, significant new instability will be introduced into already tense regions.\(^ {113} \) The furor created by French plans to sell weapons-grade uranium to Iraq as part of a

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\(^ {108} \) After the Indian nuclear explosion in 1974, then-President Bhutto of Pakistan said that Pakistanis would "eat leaves of grass," if necessary, to match India's achievement. N.Y. Times, Sept. 23, 1979, at 14, col. 1.

\(^ {109} \) Pakistan reportedly purchased many of the materials necessary for the production of enriched uranium on the world market through agents and subcontractors, possibly with the economic assistance of Libya. See id.; id., Apr. 17, 1979, at A3, col. 3; id., Apr. 9, 1979, at A1, col. 1.

\(^ {110} \) A recently revealed 1974 CIA study predicted that Taiwan would be capable of nuclear weapons production by 1979, see N.Y. Times, Jan. 27, 1978, at 5, col. 1, but Deputy Foreign Minister Frederick Chen told reporters in late 1978, "We are not going into the nuclear arms field." Id., Dec. 21, 1978, at A9, col. 5.

\(^ {111} \) See note 40 supra.


\(^ {113} \) U.S. Secretary of State Vance commented on the reported South African detonation, "The development of nuclear weapons by South Africa . . . would be destabilizing and a dangerous step forward." Id., Oct. 27, 1979, at A5, col. 2. A senior Pentagon official labeled the possibility that a threshold nuclear weapons state, such as Brazil, Argentina, Israel, or Pakistan, was responsible for the blast a "very serious menace to world stability." Id.
research reactor deal illustrates the destabilizing effect of the sale of even nuclear weapons potential on international order.114

The general international acceptance of the concept of nonproliferation satisfies the third criterion. U.N. General Assembly resolutions and multilateral treaties provide ample evidence of this international acceptance.

In 1961, the General Assembly called on all states to respect Africa as a "denuclearized zone."115 In the same year, the General Assembly unanimously adopted a resolution urging the adoption of a nonproliferation treaty to prohibit the transfer of nuclear weapons by the nuclear powers and the development or purchase of such weapons by the then-nonnuclear states.116 The Antarctic Treaty, also signed in 1961, prohibited all nuclear explosions in Antarctica.117

In 1963, the General Assembly endorsed the denuclearization of Latin America.118 The Tlatelolco Treaty later implemented this policy.119 Also in 1963, the Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water was signed.120 In 1965, a second General Assembly Resolution confirming Africa as a nuclear-free zone passed even more convincingly than the 1961 Resolution.121 The 1967 Outer Space Treaty contained an agreement not to "place in orbit around the Earth any objects carrying nuclear weapons . . . , install such weapons on celestial

114. The French plant manufacturing a nuclear reactor and fully-enriched fuel for sale to Iraq was bombed on April 6, 1979. Id., Apr. 11, 1979, at A19, col. 3.
bodies, or station such weapons in outer space in any other manner."^{122}

In 1968, the General Assembly commended^{123} the final version of the Nuclear Non-Proliferation Treaty (NPT) and the treaty itself was signed later that year.^{124} Opponents of the treaty argued against its double standard that permitted those nations already possessing nuclear weapons to maintain and increase their stockpiles while prohibiting the acquisition of such weapons by nonnuclear powers. Thus, even today India insists on a halt to weapons production by the present nuclear powers before it will sign the NPT.^{125}

Despite the lack of universal acceptance of the final draft of the Non-Proliferation Treaty, similar declarations of the international condemnation of nuclear weapons followed its adoption. The Seabed Arms Control Treaty was adopted in 1971.^{126} The 1978 Final Document of the Special Session of the General Assembly on Disarmament^{127} declared that "[n]on-proliferation of nuclear weapons is a matter of universal concern."^{128} The ultimate objective is not merely nonproliferation but "general and complete disarmament under effective international control."^{129}

Although the principle of nonproliferation has not achieved the status of customary international law, it is widely and strongly accepted by the international community. Moreover, because the degree of international acceptance is a variable factor in the *jus cogens* analysis, the moral basis

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128. Id. ¶ 36, at 1022.

129. Id. ¶ 19, at 1020. This document also speaks of the "inalienable rights of all States to apply and develop their programmes for the peaceful uses of nuclear energy. . . . All States should also have access to and be free to acquire technology, equipment and materials for peaceful uses of nuclear energy. . . ." Id. ¶ 68, at 1026. This position follows the basic formula of the Non-Proliferation Treaty, see note 124 *supra* and accompanying text, in allowing developing states access to nuclear power in exchange for their forbearance of nuclear weapons. The two ideas embodied in these documents, the "inalienable" right to nuclear power and the fundamental right to be free of nuclear war, are mutually exclusive, however, so long as the safeguards on nuclear technology remain ineffective.
and social importance of nonproliferation outweigh any lack of formal acceptance. Thus nuclear weapons nonproliferation satisfies the third criterion of a *jus cogens* norm.

The fourth and final criterion of *jus cogens* requires that such norms serve the interests of the international community rather than those of an individual nation. The threat to world peace and stability caused by nuclear weapons proliferation far outweighs any short-term strategic advantage or enhanced prestige gained by one nation’s acquisition of nuclear weapons.\(^{130}\) Therefore, nonproliferation serves the international interest in maintaining peace and order. In so doing, nuclear weapons nonproliferation satisfies the final criterion of a *jus cogens* norm.

The classification of nuclear weapons nonproliferation as a *jus cogens* norm can be tested by Sinclair’s method\(^ {131}\) of inquiring whether a treaty for the sale of nuclear weapons would be legal. Such a sale has never occurred despite the existence of an eager market for these weapons. Libya, suspected of financing the Pakistani program to manufacture the “Islamic bomb,”\(^ {132}\) is unable to purchase nuclear weapons outright. Political considerations certainly bear on this fact, but it is also true that such a sale would be regarded as immoral, disruptive of international peace and security, contrary to the expressed desires of the large majority of nations, and against the best interests of all mankind. In short, such a sale is prohibited by a *jus cogens* norm of international law.

Given the acknowledged inadequacy of present safeguards against the diversion of nuclear technology and materials from peaceful international trade to weapons production, the *jus cogens* norm of nonproliferation also prohibits the sale of peaceful nuclear technology and materials. No specific authority is needed to buttress this conclusion: “[I]t often happens that the more fundamental a rule of law is, the more difficult it is to find specific authority for it.”\(^ {133}\)

**IV**

**EVIDENCE OF STATE CONDUCT**

Establishing a *jus cogens* norm prohibiting the proliferation of nuclear weapons is more than an academic exercise. Evidence of state conduct consistent with this norm is relevant to proving its existence and assessing its practical importance. If this *jus cogens* determination is valid, the rule of

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130. “All the peoples of the world have a vital interest in the success of disarmament negotiations.” Final Document, *supra* note 127, ¶ 28, at 1021.
131. *See* text accompanying note 68 *supra*.
132. *See* note 109 *supra*.
133. A. McNair, *supra* note 78, at 514.
NUCLEAR JUS COGENS

nuclear weapons nonproliferation must have a compelling stature governing international interactions regardless of national consent. Current activities confirm this status.

No nuclear weapon has ever been sold. The numerous denials of nuclear weapons ambitions also indicate the compelling nature of the non-proliferation norm. The current Pakistani\(^\text{134}\) and South African\(^\text{135}\) nuclear intrigues demonstrate that no nation is free to ignore international non-proliferation expectations. As in the Indian and Israeli situations, other factors figure in this forced adherence to the nonproliferation norm. But the single common element is a fundamental compulsion arising from the international community. The increasing acknowledgment of the inadequacy of present safeguards and the close relationship between nuclear technology transfer and weapons proliferation extends the scope of the *jus cogens* norm prohibiting proliferation to include the sale of materials and technology that permit such proliferation. Canada, Australia, and the United States, among others,\(^\text{136}\) reacted unilaterally to the new perception of the relationship between nuclear power and nuclear weapons.

The 1963 agreement\(^\text{137}\) between Canada and India for the supply of nuclear materials and technology, concluded prior to the Non-Proliferation Treaty, contained patently ineffective controls. India pledged merely to use the materials for exclusively “peaceful” purposes.\(^\text{138}\) After India’s “peaceful” nuclear explosion in 1974, Canada immediately suspended nuclear aid.\(^\text{139}\)

This abuse of its nuclear assistance led to a reevaluation of Canada’s nuclear export policy. The nature of this reexamination and the substantive nonproliferation measures adopted were consistent with *jus cogens*. Government spokesmen noted that “the first priority, indeed the overriding priority, [was] to prevent the spread of instruments of destruction.”\(^\text{140}\) Safeguards were strengthened by restricting nuclear exports to signatories

\(^{134}\) See note 109 supra.

\(^{135}\) See notes 112-13 supra.

\(^{136}\) See The Times (London), July 7, 1978, at 13, col. a and *id*, Mar. 7, 1978, at 17, col. a, for discussions of Dutch concern over the sale of nuclear fuel to Brazil. This concern centered on the inadequacy of safeguards to prevent the use of this fuel in weapons production.


\(^{138}\) *Id.*, art. IX.


\(^{140}\) Statement by Donald Jamieson, Canadian Secretary of State for External Affairs (Dec. 22, 1976), *reprinted in* 1976 DISARMAMENT DOCUMENTS, *supra* note 34, at 951, 952. Secretary Jamieson described nuclear export policy as “raising... fundamental issues affecting world economic growth and world peace.” *Id.* at 951.
of the Non-Proliferation Treaty and nonsignatory states that accepted international safeguards. In setting what it felt should be "a compelling example for other nuclear suppliers," Canada acted against its economic interests as a nuclear supplier.

Australia, which possesses twenty percent of the known western reserves of uranium, is increasing its safeguards against the diversion of its nuclear exports. The 1977 Ranger report on the mining and export of Australian uranium concluded that "[t]he nuclear power industry is unintentionally contributing to an increased risk of nuclear war." The report recommended the cessation of sales to nonsignatories of the Non-Proliferation Treaty, increased safeguards against the diversion of fuel to weapons production, full inspection of all nuclear installations in the recipient state, increased cooperation among nuclear suppliers in developing more effective safeguards, and the regular review of Australian export policy. Perhaps most surprisingly, the report advocated a unilateral restriction of nuclear energy production despite the adverse domestic economic consequences of such a policy.

The United States strongly reacted to the recognition of the inadequacies of present safeguards and the dangers of nuclear weapons proliferation. Soon after taking office, President Carter noted that proliferation has "consequences for all nations" and "direct implications for peace and security." To counteract this threat, the President decided to defer U.S. commercial reprocessing and plutonium recycling, defer and restructure the breeder reactor program, promote research into alternative nuclear fuel cycles, and establish an international fuel cycle evaluation program. The President also decided to "embargo the export of equipment or technology that would permit uranium enrichment and chemical reprocessing."

The Nuclear Non-Proliferation Act of 1978 echoed President Carter's determination to compel a reevaluation of international nuclear safeguards. The Act requires the renegotiation of virtually all of the nuclear cooperation agreements between the United States and foreign states to ensure the existence of adequate safeguards on transferred technol-

141. Id. at 952.
142. Id. at 953.
145. Id.
146. Id.
147. President's Statement, supra note 55, at 506.
148. Id.
149. Id.
ology and materials. The Act further endorses strengthening and expanding the International Atomic Energy Agency safeguards, the universal adoption of the Non-Proliferation Treaty, and continuing oversight of nuclear materials and technology of U.S. origin.

Foreign nations argue that unilateral U.S. action and the possible abrogation of existing supply contracts and treaty commitments for U.S. exports are illegal. When informed that existing U.S.-Indian supply contracts are subject to the new Act, Indian Prime Minister Desai responded by claiming that no domestic U.S. legislation could override contracts between two nations. Although international law supports the Indian position that one party to a treaty cannot plead illegality under domestic law to escape its obligations, an exception exists when the relevant treaty conflicts with a jus cogens norm. The jus cogens norm proposed here—prohibiting nuclear proliferation and the international sale of nuclear technology that contributes to proliferation—supports the U.S. position.

153. Id. § 3201.
155. French officials raised this argument. See The Times (London), July 11, 1978, at 5, col. b. France originally adopted a similar position with respect to its own nuclear supply contracts. After the French Council for Foreign Nuclear Policy decided to stop the exportation of reprocessing plants, a government official stated that an existing contract with Pakistan would be unaffected. Interview with French Minister of Foreign Affairs de Guingueud (Dec. 16, 1976), reprinted in 1976 DISARMAMENT DOCUMENTS, supra note 34, at 944.

France eventually canceled the Pakistani contract in 1978. See N.Y. Times, Sept. 23, 1979, at 14, col. 4. The legal justification for this action was not announced, but strong statements by the United States, voicing its concern over the proliferation problems connected with such plants, probably played a role in this reversal.

157. See, e.g., Vienna Convention, supra note 62, art. 27: "A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty."
158. See text accompanying notes 61-62 supra.
159. The international legal doctrines of mistake and rebus sic stantibus could also be cited in support of the U.S. position. Article 48 of the Vienna Convention, supra note 62, provides:

I. A State may invoke an error in a treaty as invalidating its consent to be bound by the treaty if the error relates to a fact or situation which was assumed by that State to exist at the time when the treaty was concluded and formed an essential basis of its consent to be bound by the treaty.

(emphasis added). The mistaken presumption of the adequacy of safeguards against diversion would constitute the ground for invalidity here.

Article 62 of the Convention concerns rebus sic stantibus, or a "[f]undamental change of circumstances." It provides:

1. A fundamental change of circumstances which has occurred with regard to those existing at the time of the conclusion of a treaty, and which was not foreseen by the parties, may not be invoked as a ground for terminating or withdrawing from the treaty unless:

(a) the existence of those circumstances constituted an essential basis of the consent of the parties to be bound by the treaty; and
The United States is using reason and negotiation to strengthen export controls and to reevaluate the plutonium-based nuclear economy in light of the increased risks of proliferation and terrorism. This policy sensibly avoids confrontation by attempting to persuade other nations to accept a role in reducing these dangers. Recently, this approach began to bear fruit. The London "Suppliers Club" conferences now include fifteen nations\textsuperscript{160} that agree on common export safeguards.\textsuperscript{161} The United States also secured international commitments to reevaluate the nuclear fuel cycle at the International Nuclear Fuel Cycle Evaluation Conference scheduled to end in late 1979.\textsuperscript{162}

Like the Canadian and Australian situations, restricting nuclear exports and compelling the reevaluation of nuclear safeguards through the 1978 Nuclear Non-Proliferation Act and the London Suppliers Conferences conflict with domestic economic interests.\textsuperscript{163} But, given the \textit{jus cogens} stature of the nonproliferation norm, this position rests on firm legal ground.

\begin{footnotesize}
\begin{enumerate}
\item The London "Suppliers Club" includes fifteen nations that agree on common export safeguards.
\item Sixty-six nations are represented at the conference. In a draft report issued in November 1979, the conferees stated their failure to agree on more effective safeguards. N.Y. Times, Nov. 4, 1979, at A1, col. 1. The report concluded that there are no technical means of preventing the expansion of peaceful nuclear technology from increasing the proliferation of nuclear weapons. \textit{Id.}
\item As of August 1978, the European Economic Community depended on the United States for 99\% of its enriched nuclear fuel, but the Eurodif enrichment plant in France and Eurencio plants in Holland and Great Britain will change the situation. The EEC expects to meet two-thirds of its enriched fuel requirements from these plants by 1980, and 75\% by 1985. \textit{Nuclear News, supra} note 26, at 54.
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With the U.S. lead, other concerned nations might act to increase safeguards; without it there is little hope of developing better safeguards.

CONCLUSION

\textit{Jus cogens} is an emerging doctrine with a potentially dynamic future. The criteria for \textit{jus cogens} norms set forth in this Note yield largely correct results, but they are not propounded as precise tests of \textit{jus cogens} character. Rather, they are proposed as a rigorous set of checks to evaluate the \textit{jus cogens} character of a purported norm of international law. Measured against these standards, the prohibition of nuclear weapons proliferation shares the status of the \textit{jus cogens} prohibitions of slavery, genocide, and aggression.

In the final analysis, "[I]t [is] not the form of a rule but the particular nature of the subject matter with which it deal[s] that might give it the character of \textit{jus cogens} . . . ."\textsuperscript{164} The potentially awesome consequences of nuclear proliferation demonstrate that it is such a \textit{jus cogens} subject matter calling for strict scrutiny of national and international endeavors in the nuclear field. Current state practice confirms this conclusion.

In light of this \textit{jus cogens} norm, the heretofore prolific international trade in nuclear technology must be restrained because of the acknowledged inability of present safeguards to prevent the spread of nuclear weapons. The demonstrated link between the sale of peaceful nuclear technology and the production of nuclear weapons requires the removal of nuclear technology from international commerce until more effective safeguards are developed. This is the \textit{jus cogens} consequence propounded by this Note: Insofar as nuclear technology transfers permit or facilitate the proliferation of nuclear weapons in violation of a \textit{jus cogens} norm, these transfers are illegal.

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\textsuperscript{164} \textit{Official Records, supra} note 73, at 303 (remarks of Stephan Verosta, Austrian Representative).

\textsuperscript{*} The author would like to thank Professor Günther F. Handl, Visiting Associate Professor at the Cornell Law School, for his assistance in the preparation of this Note.