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Anthony D'Amato

Northwestern University School of Law, a-damato@law.northwestern.edu

Kirsten H. Engel

University of Arizona, Rogers College of Law

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State Responsibility for The Exportation Of Nuclear Power Technology,
by Anthony D'Amato* and Kirsten Engel**, 74 Va. L. Rev. 1011-1066, 1988

Abstract: Should nations that export nuclear power plants to developing countries be potentially liable to the people of those countries for catastrophic accidents? Risk of accident can be reduced if international law compels upgrading of safety design and construction of nuclear plants. Both the international law of state responsibility and an international regulatory agency have roles to play.

Tags: Nuclear accidents, State responsibility, Territorial principle, Denial of justice, Philippine power plant at Napot Point

[pg1011]*** I. INTRODUCTION

Should nations that export nuclear power plants to developing countries be potentially liable to the people of those countries for catastrophic accidents such as meltdowns of the plants themselves, substantial radiation leaks in the atmosphere, or irradiation of water and soil that could render uninhabitable or useless large areas of the receiving nation?FN1 At first glance, the fact that exporter and importer [pg1012] are sovereign nations—coupled with the underdeveloped state of international law in this field—suggests legal immunity for both. The failure of exporting nations even to consider relevant the question of the health and well-being of the population of the importer demonstrates the psychological distance between present attitudes and international imposition of liability. The United States Nuclear Regulatory Commission (NRC) consistently refuses to "evaluate the health and safety characteristics of the facilities to be exported."FN2 Yet psychological distances have a way of being rapidly compressed in the unfortunate event of a great public calamity. The goal of this Article is to shorten that psychological distance—in advance of public necessity and in the hope of helping to avert catastrophic accidents. The risk of accident can be reduced if international law compels an upgrading of safety design and construction of nuclear plants. We suggest that international environmental responsibility of the exporting nation is neither far-fetched nor unlikely.

That the exporting nation (which we will call nation "*E*") may have liability under international law to the population of the receiving nation (nation "*R*") is a thesis that has been underappreciated in the burgeoning literature devoted to nuclear power safety.FN3 Most [pg1013] writers considering the topic of liability for nuclear plant accidents or emissions primarily address transboundary physical and environmental harm.FN4 Yet the most likely victims of nuclear disasters—the people of the nation in which the nuclear plant is located—have largely been overlooked. To be sure, many scholars would say that those people have no international claims and can only look to their own government for possible help.FN5 In this Article, we take a contrary position.

[pg1014] There are good reasons for considering the export of nuclear power plants as a category separate and distinct from the general category of the export of hazardous materials or unsafe products. First, the hazards of radiation leakage and catastrophic emissions from meltdowns seem to present a unique peril. Sudden and unseen danger to human health is of a different order of magnitude than other hazardous activities. Indeed, as this Article was in the research stage, the most serious nuclear meltdown in history, exceeding the partial meltdown at Three Mile Island in the United States, occurred near Kiev at the Soviet Union's Chernobyl nuclear power plant.FN6 Yet the magnitude of the health hazard posed by nuclear power plants is generally downplayed. Whereas the recent chemical plant catastrophe in Bhopal, India involving non-nuclear technology caused over 2,000 deaths,FN7 the plant was only one of two constructed by

Union Carbide [pg1015] in the entire world. Nuclear power plants, with a potential of far greater harm, have now been exported to nine developing nations. As of December 31, 1986, a total of 38 were in operation, 32 were under construction, and 39 were planned.FN8

Second, nuclear power plant importation is characteristically and invariably a public function of government. The transfer of nuclear technology is quintessentially a government-to-government decision,FN9 even though private manufacturers of the technology may be involved. The importing state is actively involved and its entire population is affected. In this respect, export of nuclear technology is altogether different from the export of consumer products. Moreover, electric-power generation from nuclear plants is typically a public utility having monopoly or quasi-monopoly status. Finally, as the Chernobyl accident demonstrated, a nuclear meltdown can contaminate [pg1016] the global commons, lending nuclear power exportation a significant, if not unique, international safety dimension. This can be distinguished from the general case of exportation of hazardous materials or unsafe products whose harmful effects rarely extend beyond the borders of the receiving nation.

Certainly, some of the issues we will address will overlap with similar issues that relate to the exportation of hazardous materials or unsafe products in general. Yet because certain risks are unique to nuclear power,FN10 and because of the separate category that the nuclear power industry holds in the mind of the public, it is appropriate to deal with our topic in relative isolation from the export of hazardous products or technologies in general. Most writers who deal with the problem of transboundary nuclear pollution similarly focus primarily on the analysis of nuclear power.

There is also reason to single out the export of nuclear plants to developing nations in particular. The transfer to and use of hazardous technology by developing states raises distinct problems, including lack of sufficient information concerning the hazards of technologies, lack of sufficient expertise to monitor ongoing performance, and lack of experienced regulatory and administrative bodies.FN11 Although these insufficiencies are not the source of the exporters' liability proposed in this essay, they do serve to demonstrate that the exporter-importer relationship regarding a technology as advanced as that of nuclear power is not the normal everyday trade relationship between nations. Hence, it deserves careful, and, to some extent, autonomous consideration.

Our topic gains current importance largely because importing governments in developing nations have failed to develop domestic regulatory organizations to cope with the unreviewed safety aspects of nuclear imports. It may be that developing nations value the benefits of nuclear power over its potential social and economic costs, or that due to the competition among exporters to sell nuclear technology, importing nations have not been subject to external pressures to include needed safety features. They have also failed to obtain safety [pg1017] guarantees in private contracts with nuclear power manufacturers.FN12 It is, of course, the exporting nations that have the expertise and domestic experience needed to require safety features in the design and construction of nuclear power plants. Because of economic reluctance to add safety features that might raise costs and thus lose bids, however, regulation and assessment by most nuclear exporters have become mere formalities.FN13 In addition to the lack of economic incentive, these nations typically argue that such insistence would threaten to impinge upon the sovereignty of the receiving nation, an argument in which the receiving nation often concurs.FN14

[pg1018] In this Article we will argue that exporting states bear a minimal responsibility for the safety of the population of developing countries from accidents caused by the nuclear technology exported to these countries by private entities within the exporting states. Such a responsibility exists, we contend, even if the governments of the importing nations demonstrate a lack of concern for their population's safety in the name of "sovereignty," and even if they grant a waiver of responsibility to the exporting nation. This claim of state responsibility is a logical extension of the developing international law of human rights—a law that trumps the legal power of the exporter and the importer to jointly shield themselves from liability to individuals even if they execute intergovernmental waivers of liability.

We begin in Part II with a discussion of the United States' involvement in the export of the previously mentioned Westinghouse nuclear power plant to the Philippines in 1977-78.FN15 As we shall see, the various international legal issues that could have been raised in that case were almost completely overlooked.FN16 We will then focus, in Part III, upon two prominent doctrines of public international law as animating sources for the discovery and articulation of the exporting nation's international legal responsibilities toward the people of the importing nation. These twin pillars of the classic law of state responsibility for injuries to aliens are the doctrine of the international minimum standard and the standard of nondiscrimination against nonnationals.FN17 Traditionally, these doctrines imposed duties upon a state only for injuries to aliens incurred within the state's own boundaries. We shall argue, however, that this boundary limitation does not implicate the essence of the doctrines.FN18 Indeed, newly emerging concepts of international justice among states arguably dissolve territorial line-drawing in appropriate cases.FN19 We will argue that the principles of state responsibility become relevant to emerging concepts of justice in the export of nuclear power plants—that state *E* should not discriminate against aliens and the degree of safety delivered to aliens should not [pg1019] fall below an internationally recognized minimum standard. FN20 Following our discussion of the applicability of the law of state responsibility to nuclear power exportation, we will discuss in Part IV the obligations imposed upon nation *E* through that application. We will suggest that the nondiscrimination principle places upon *E* a duty of full disclosure to *R* of any safety defects of the exported plant as compared to *E*'s domestic nuclear safety regulations or its actual domestic nuclear power plants. We will also suggest that the international minimum standard prevents *E* from exporting any nuclear power technology that falls below a certain level of safety, regardless of *E*'s full disclosure of the plant's defects or *R*'s consent to receive the plant with those defects.FN21

Finally, we conclude our essay in Part V by proposing the establishment of a regime of international regulation of nuclear power exportation with standards set above that of the minimum international standard. This would promote the individual and collective self-interests of exporting nations by reducing or eliminating the competitive disadvantage that would otherwise result from including costly safety features.FN22 Since safety concerns enter into all stages of the design and construction of a plant—from the decision of the proper site for the plant to the determination of what safety features should be included in its design—the reader should not expect this essay to propose specific regulatory standards for any and all exportable nuclear power plants. Rather, we are proposing minimal norms that nevertheless have significant implications for international tort liability and hence for modifying nuclear power export behavior. In any event, international law should be looked upon in this context as consisting of general purposive standards subject to reasonable elaboration in specific cases. Even general standards, however, may be applied in both national and international forums by both public and private litigants.

II. THE FAILURE OF UNILATERAL DOMESTIC EXPORT REGULATION: THE PHILIPPINE NUCLEAR POWER CASE

Many of the safety issues involved in the exportation of nuclear power to developing nations are found in the 1975 Philippine nuclear [pg1020] power case.FN23 The safety problems presented by the nuclear power plant manufactured by Westinghouse, and the collateral legal issues presented by the U.S. decision not to reveal those problems to the Philippine government were debated before two forums: the NRC FN24 and the United States Court of Appeals for the District of Columbia Circuit.FN25 The case is generalizable for the purposes of this essay in two important respects. First, it demonstrates the inherent limitations of domestic licensing schemes in the regulation of nuclear export safety. Second, by highlighting the safety concerns raised by this typical nuclear power plant's design, construction and operation, the case may be read as suggesting key areas susceptible to uniform standards and international regulation.

Even before Westinghouse filed for an export license in 1976, the safety of the projected Filipino plant was widely criticized in both the Philippines and the U.S. Opposition began in the Philippines in 1976 with the work of a young nun who organized members of a Catholic parish near the plant's site to study the benefits and risks of the proposed facility.FN26 This local opposition was wholly ineffectual, however, in persuading the regime of President Ferdinand Marcos to reconsider the plant's construction.FN27 In August of that year, however, a force-eight earthquake struck the nearby island of Mindanao, killing four thousand people and temporarily halting all work on the site preparation.FN28 To reassure the Filipino public of the plant's safety, President Marcos required top Westinghouse officials to give his government written assurances and supporting studies of the plant's safety.FN29 The rigor of the government's review, however, was [pg1021] seriously undercut by persistent rumors in the American press of payoffs to Marcos' family members and close confidants to secure the Philippines contract.FN30 These reports, later substantiated,FN31 fueled opposition groups in the U.S. which, with their Filipino counterparts, called for increased U.S. monitoring and investigation of the Philippines project.

The most damaging objection to the Westinghouse plant came from the Union of Concerned Scientists, who called for the denial of an export license to Westinghouse based upon serious technical and logistical flaws in the plant's proposal.FN32 Of primary concern to the Union of Concerned Scientists was the siting of the plant—fourteen kilometers from Mt. Natib, a volcano considered active under NRC standards, and approximately twelve miles from the U.S. Subic Bay naval base, home to over 12,000 Americans.FN33 As early as 1976, the Philippines Atomic Energy Commission had asked the NRC to review the "Preliminary Site Investigation Report" prepared by a U.S. consulting firm for the Philippine government.FN34 In this review, which was not considered by the NRC in granting the export license, [pg1022] the NRC staff found that the volcanic hazards of the site had not been thoroughly addressed and recommended further study of offshore earthquake faults.FN35 An evaluation of the volcanic and earthquake hazards was in fact undertaken by the independent International Atomic Energy Agency (IAEA) in 1978, but the results were kept secret for almost a year due to political pressure by the Philippine government.FN36 The IAEA found the site was "unique to the nuclear industry insofar as the risk associated with nearby volcanoes is concerned."FN37 Besides finding the eruption of Mt. Natib a distinct possibility, the IAEA recommended the installment of a volcanic surveil-

lance system and a determination of the feasibility of removing radioactive materials from the site.FN38

Equally distressing to U.S. scientists was the plant's design, which, it was discovered, had never undergone a detailed, technical review by the NRC, even by proxy.FN39 Other safety concerns focused on the capacity of supplemental safety systems, both technical and human, to mitigate the possibility and the effects of a radioactive leak or meltdown.FN40 Furthermore, the Union of Concerned Scientists expressed doubt over the reliability of the Philippine nuclear safety commission after the commission gave inaccurate descriptions of some relatively simple of the plant which were intended to protect the reactor against high pressure.FN41

Fueled by these concerns, the Philippine Movement for Environmental Protection and the U.S.-based Center for Development Policy [pg1023] petitioned the NRC for a hearing on the dangers inherent in locating a plant at the proposed Napot Point site and on the safety of Filipinos and Americans residing in the immediate area.FN42 Consistent with earlier decisions, FN43 a plurality of the NRC Board of Commissioners voted to issue the plant's license.FN44 In so doing, the Board reaffirmed its position that it did not have jurisdiction under domestic statutes to consider the health, safety, and environmental impacts on the citizens of a recipient nation, FN45 or even to consider the effects of an exported reactor on U.S. interests and U.S. citizens abroad.FN46 The Board claimed that the concept of territorial sovereignty supported a limited interpretation of the agency's jurisdiction, because the Philippine government had "made it clear" that a detailed health and safety review of the proposed export "would be regarded as an intrusion into its sovereign responsibilities."FN47

[pg1024] The Board also openly expressed its concern that if it undertook a detailed review, the U.S. would be considered ultimately responsible for the safety of the imported reactor, even though aspects of its design, construction, and operation were not within the Board's control and could not be monitored for safety hazards.FN48 "No matter how thorough the NRC review," the plurality stated, "the [Board] would not be in a position to determine that the reactor could be operated safely."FN49

The common denominator among the troublesome areas cited was the inability to ensure the necessary cooperation of either the recipient nation or the nation manufacturing supplemental parts of the nuclear reactor. First, the Board complained that verification of the data on the characteristics of the site of the new plant, an essential element of the domestic review process, would be impossible without the consent of the foreign government.FN50 According to the Board, such a review would require site inspections and investigations that would likely be viewed as intrusions on sovereign authority.FN51 Second, the Board argued that a review of the exported plant's safety would be impossible given the common practice among recipient nations of purchasing only a portion of the required equipment for reactors from any one exporter.FN52 Third, the Board claimed that the NRC could not complete essential parts of the review process, such as the inspection of the plant as it is being built and the periodic inspection of the plant as it is being operated, since the NRC has no continuing regulatory jurisdiction over activities associated with the project once the export license is issued and the U.S.-manufactured parts are shipped.FN53 Inextricably linked to this problem of continuing regulatory jurisdiction was the absence of control over the selection and training of natives of the recipient nation to manage and operate the reactor.FN54 In conclusion, the NRC stated that because it could not make a meaningful safety review of exported nuclear power plants, its limited resources [pg1025] should be devoted to domestic nuclear licensing activities.FN55

Commissioner Bradford submitted a vigorous dissent.FN56 He found that the U.S. self-interest and responsibility as a supplier of a potentially dangerous technology weighed far heavier than the Philippine interest in state sovereignty.FN57 Bradford argued, therefore, that the NRC had a duty to complete as comprehensive a review of the exported reactor's safety as possible and to share the results of that review with the Philippine government.FN58 A major element of the review would be to determine whether the export could be licensed in the U.S. according to NRC standards.FN59 In only extreme cases did Bradford foresee such a review being the basis for a denial of an export license.FN60 Bradford stated that except when it was necessary to attach conditions to the export, the review "would presume the intelligent self-interest of the recipient nation."FN61 Seemingly encouraged by Bradford's dissent, the Philippine Movement for Environmental Protection and various U.S. public interest and environmental organizations appealed the NRC's jurisdictional determination to the United States Court of Appeals for the District of Columbia Circuit.FN62 Just as Commissioner Bradford's dissent neglected to cite international law, the petitioners on appeal also overlooked the relevance of that body of law. The petitioners limited their arguments for NRC review of the foreign impacts of nuclear reactor exports to U.S. domestic law.FN63 Nevertheless, the petitioners did address the NRC Board's national sovereignty argument. They first argued that the proposed review posed no threat to the sovereignty of the Philippines, because it did not compel the extraterritorial application of U.S. law. The statutes applicable to the NRC's conduct in the present case, the [pg1026] petitioners explained, affect only the issuance of a license to export nuclear equipment from the U.S. and thus "regulate conduct occurring solely in the United States." FN64 The petitioners also disputed the NRC's contention that the Philippines would regard the review as an intrusion or would refuse to cooperate with NRC scientists. As a basis for their belief, the petitioners listed earlier cooperative actions on the part of the Philippines.FN65 These included allowing a series of ongoing site inspections by U.S. officials pursuant to the requirements of the Nuclear Non-Proliferation Act of 1978 (NNPA), and the release to the NRC of information calling into question the reactor's safety.FN66

Despite these arguments, the District of Columbia Circuit affirmed the NRC licensing decision.FN67 The court, in an opinion written by Judge Wilkey, held that the agency had properly approved the exported reactor without evaluating the health, safety, and environmental impacts of the reactor within the recipient nation or upon U.S. interests.FN68 Of overarching importance to the decision was the position of the Philippine government. Contrary to petitioner's assertions, the Philippine government submitted an amicus brief claiming that the Philippines would regard a refusal by the NRC to license the reactor export as an unwarranted intrusion into matters over which the Philippine government had exclusive responsibility.FN69 The essence of Judge Wilkey's opinion was that where, as here, the Congressional mandate is vague as to the exact jurisdiction of the NRC's licensing determinations, any interest the U.S. has in reviewing the health, safety, and environmental impact abroad of a nuclear export must give way to two stronger interests: the Philippines's own regulatory [pg1027] interest, and the U.S. interest in promoting its role as a predictable nuclear energy supplier for nonproliferation goals.FN70

Implicit in the court's holding was a recognition of the potential anticompetitive effects of a mandated review procedure.FN71 Such a procedure might discourage the purchase of U.S. nuclear equipment due to the increased cost of U.S. equipment and the necessity of engaging in cooperation with U.S. regulatory authorities. The consequence, of which the NRC must have been aware, would be to cripple the U.S. nuclear export market with no apparent advantage to third world purchasers who would most likely buy their nuclear supplies from other exporting nations

that require little or no regulatory review of the exported equipment. There is, therefore, no incentive on the part of the U.S. to do a complete safety review.

The U.S. administrative and judicial decisions to renounce any U.S. obligation to review the safety of exported reactors illustrates that under the current domestic law of most nuclear exporting nations, exporters have license to do what is illogical and morally reprehensible. Yet, certainly from the viewpoint of preserving state sovereignty interests, such a renunciation is not necessary. As Commissioner Bradford's dissent noted, a U.S. review of the safety of the Westinghouse export would be no more intrusive than the nonproliferation reviews exporting nations are committed to perform pursuant to the London Supplier Guidelines and the Nonproliferation Treaty.^{FN72} Furthermore, the NRC has the information needed to complete aspects of the review process that are potentially of great importance to safety. [pg1028] It possesses the ability to warn a recipient nation of known defects in the design of certain domestically manufactured plants. In the Philippine case, for example, the NRC could have alerted the Philippines of Westinghouse's past problems with core-cooling systems. Of course, not all regulation of the siting, design, construction, and operation of a nuclear power plant is entirely within the competence of the exporting nation's regulatory agency and domestic licensing procedures. For instance, the exporting nation is not equipped to review the safety implications of a plant where domestically produced parts are synthesized with foreign-made parts.

The Philippine case indicates that there exists a spectrum of safety issues involved in the generation of nuclear power, ranging from those most capable of being regulated on the domestic level to those encompassing such a diversity of manufacturing designs and unique geologic and regulatory circumstances as to mandate international regulation. The Philippine case also demonstrates that there is no incentive for a domestic exporter to do a complete safety review when it is likely to result in the loss of the domestic sale to a foreign nuclear power manufacturer.

III. THE POSSIBILITY OF INTERNATIONAL LEGAL REGULATION: THE LAW OF STATE RESPONSIBILITY

A state that exports, or allows to be exported, dangerous technology to another state may arguably be liable under the international law of "state responsibility," regardless of the fact that the injury occurs outside the exporting nation's territory and involves foreign nationals, rather than citizens of the state. We begin with the Restatement of Foreign Relations Law (Third):

A state is responsible under international law for injury to a national of another state caused by an official act or omission that violates

(a) a human right that, under § 701, a state is obligated to respect for all persons subject to its authority;

(b) a personal right that, under international law, a state is obligated to respect for individuals of foreign nationality;. . . FN73

[pg1029] This proposition obviously could be applied to nuclear exports, provided that the injured nationals in *R* have a personal right under international law that has been violated by *E*. The claim of those individuals, in accordance with the Restatement's rule, would be that *E* wrongfully omitted to ensure that its nuclear exports met certain standards of safety. Because the exports failed to meet those standards, a nuclear accident occurred which resulted in harm to the individuals residing within *R*.

This summary statement, however, is tautological. The question we address in this paper is do those individuals have such a right that is protected by international law? And it, in turn, gives rise to a threshold inquiry: does the "territorial" principle in international law stand as an insuperable barrier at the very outset of our analysis?

Territoriality is nearly synonymous in the minds of many writers with the doctrine of state responsibility, upon which we shall ground our argument. This doctrine traditionally has two faces; it absolves a state from liability for acts occurring outside its boundaries, but holds a state responsible for the external effects of acts commenced within its boundaries. It may strike some as surprising, therefore, that the comments and reporter's notes to the above-quoted Restatement section do not specify that an injury to the national of another state must take place in the injuring state. We shall argue that the reporter's failure to specify which territory is at issue is indeed a proper modern interpretation of the doctrine of state responsibility for two reasons. First, the location of the harm is not intrinsic to the doctrine of state responsibility even as classically conceived. Second, developments in areas of international human rights law have eroded the classical reason for territoriality, at least when fundamental human rights are implicated.^{FN74} Before taking up these reasons, we must deal briefly with the content of the principles of state responsibility.

[pg1030] *A. Principles of State Responsibility*

The doctrine of state responsibility is composed of two fundamental principles. Under the first, the principle of the international minimum standard of treatment, aliens are entitled to a certain minimum standard of treatment that is invariant across international frontiers.^{FN75} Under the second principle of state responsibility, nonnationals may not be discriminated against in their basic human rights as compared to the treatment of nationals.^{FN76}

1. International minimum standard of treatment.

The principle of the international minimum standard of treatment stands for the proposition that nonnationals are entitled to a certain minimum standard of treatment by the host state. This principle evolved from the norm referred to as "denial of justice," applied in egregious cases involving gross denials of justice: denying the accused the right to defend himself, not allowing the accused to call witnesses in his own behalf, double jeopardy, and control of the tribunal by the executive.^{FN77} Later cases transmuted the "denial of justice" norm into "ordinary standards of civilization" and extended it beyond the courtroom.^{FN78}

[pg1031] The concept of denial of justice was broadened considerably by the inclusion of acts by legislative and administrative branches of government.^{FN79} However, the standard for finding an administrative denial of justice was quite high. The majority in the *Neer Case* stated that "the treatment of an alien . . . should amount to an outrage, to bad faith, to wilful neglect of duty, or to an insufficiency of governmental action so far short of international standards that every reasonable and impartial man would readily recognize its insufficiency."^{FN80} The concurring commissioner, Commissioner Nielsen from the United States, favored [pg1032] an easier standard: "the propriety of governmental acts should be determined according to ordinary standards of civilization, even though standards differ considerably among members of the family of nations, equal under the law."^{FN81}

Although the General Claims Commission in the *Neer Case* found the police conduct internationally sufficient, the Commission has found otherwise in numerous cases employing the

tests set forth by the majority and the concurrence.FN82 In the *Faulkner Case*, for example, the Mexican treatment of an American prisoner was found to be internationally insufficient.FN83 In the *Mallen Case*, the U.S. was held liable for injury to a Mexican consul because U.S. failure to execute the penalty imposed upon the American responsible for the injury constituted a denial of justice.FN84 Other cases establish that a state can incur liability for illegal arrest, failure to account for a suspect under custody, failure of police to control a civilian riot, and arbitrary control of individual property.FN85 These administrative cases exemplify the proposition that adequate police protection, such that an alien is neither harassed by the authorities nor left to the mercy of unruly mobs, and respect for land ownership, are necessary for compliance with the international minimum standard.

[pg1033] The foregoing cases illustrate a gradual broadening of the principle of the international minimum standard of treatment from its genesis in the earliest egregious examples of denial of justice to the more inclusive doctrine now known as the international minimum standard of treatment of nonnationals. The principle is still limited by a certain notion of nondeprivation of "justice" to such persons, but the concept of "justice" itself has been expanded, in accordance with gradually evolving norms of responsibility to others. Its content is no longer confined to the judicial context, but can now embrace legislative and administrative denials of justice. The term "justice" is gaining content as the international community perceives a greater degree of civilized treatment as part of its standard conception of "justice."

2. *Standard of nondiscrimination.*

In conjunction with the principle of the international minimum standard of treatment, the law of state responsibility has from the outset included a second principle—that of nondiscriminatory treatment of nonnationals. This standard was never meant to accord nonnationals the same rights and privileges accorded citizens.FN86 But it has had the operative effect of raising the rights of aliens, because if the level of treatment accorded an alien falls significantly below the level of national treatment, the alien can claim a denial of justice. Hence, due to the relationship between the nondiscriminatory standard and the international minimum standard, an alien is entitled to whichever standard is higher. The legal relationship between the minimum standard and the nondiscrimination principle was given expression by the United States Court of Appeals for the Second Circuit in the context of the nationalization of property. In *Banco Nacional de* [pg1034] *Cuba v. Sabbatino* (later reversed on other grounds by the Supreme Court),FN87 the Second Circuit held that international law required that a state have a "reasonable basis" for differential treatment of aliens.FN88 Cuba gave distinctive treatment to non-Cubans when it nationalized an American sugar company ten weeks before it nationalized Cuban companies in order to retaliate against a reduction in American sugar imports from Cuba.FN89 The court held that this was not a "reasonable basis for a distinction in treatment" of non-Cubans and hence was a violation of international law.FN90 Thus we might infer from the court's reasoning that the nondiscriminatory treatment standard in the law of state responsibility creates a presumption in favor of according aliens equal treatment with nationals, except when a "reasonable basis" can be adduced for according aliens a lower level of treatment. In this fashion, the principle of nondiscrimination appears to give a certain progressive element to the principle of the international minimum standard.FN91 A nation may accord international minimum treatment to an alien and nevertheless violate the alien's rights if the alien is blatantly discriminated against in comparison to citizens. In this manner the content of the international minimum standard itself might be

raised over time, progressively affected in the *Sabbatino* fashion by the utilization of the nondiscriminatory treatment standard.FN92

[pg1035] Similarly, a nation may be guilty of falling below the international minimum standard even though it has complied with the nondiscrimination standard. Accordingly, it is not an adequate defense to a charge of failing to meet the international minimum standard to say that aliens have received the same treatment as that accorded to nationals. In this respect, one is better off, under the classical view of state responsibility, being an alien than being a citizen. The alien is entitled to the international minimum standard of treatment, even though a citizen under exactly the same circumstances is without standing to claim an entitlement to the international minimum standard.FN93

B. Extraterritorial Application of State Responsibility: The Threshold Question

1. No doctrinal limitation to territorial harms.

There is nothing intrinsic to the doctrine of state responsibility that confines it to territorial applications. Vattel, generally credited with first articulating the doctrine, wrote in 1785 that:

Whoever uses a citizen ill, indirectly offends the State, which ought to protect this citizen, and his sovereign should revenge the injuries, punish the aggressor, and, if possible, oblige him to make entire satisfaction; since otherwise the citizen would not obtain the great end of the civil association, which is safety.FN94

Under this classical view, the harm to the nonnational becomes an injury to the nonnational's state. Under the modern law of human rights, however, the injury to the state is seen as an unnecessary addition to the individual's claim.FN95 Yet, under either the classic or the modern view, what is striking is what is omitted: the requirement that the harm occur in the offending state's territory. The location of the [pg1036] harm was apparently as unimportant to Vattel as it is to the authors of the current Restatement of Foreign Policy Law who, as we have seen, do not distinguish between territorial and extraterritorial applications of section 711.FN96 Of course, it is quite possible that Vattel simply did not consider the problem of extraterritorial harm. The same cannot be said, however, of the Restatement's drafters.FN97

To be sure, the doctrine of state responsibility has been implicitly tied to a state's territory through the argument that the doctrine is necessary to equip the nonnational with the protection afforded the national through his participation in the political process. The publicist Edwin Borchard noted that "[i]t has been argued that one reason why the alien is not bound to submit to unjust and unredressed treatment equally with nationals is because the latter is presumed to have a political remedy, whereas the alien's inability to exercise political rights deprives him of one of the principal safeguards of the citizens."FN98 This argument might suggest that an alien needs legal safeguards in a foreign territory precisely because he is denied a political voice. Yet, upon analysis, the argument does not necessarily confine itself to aliens within the host country's territory. An alien outside the host country's territory harmed by the host country is equally unable to exert a political voice; indeed, he may even be more disabled than an alien who is within the nation's territory (who might presumably have the political "clout" of association with ethnic groups, some of whom are naturalized citizens, as well as the "clout" of his own nation's consular office). Hence Borchard's distinction does not justify drawing a line at a nation's boundary.FN99

Under a more modern reformulation of the law of state responsibility, it is apparent that what is significant is whether the acts that cause harm to an alien are attributable to the state. Al-

though the judicial precedents typically involve acts that occur within the territory of the state, it is clear that the location of the acts is unimportant compared [pg1037] to the need for attribution to the state. A state may, for example, act outside its own territory, as when its agents abroad maltreat a nonnational.FN100 Although the location of the acts constituting a tort is significant in terms of choice-of-law questions, these questions come up only when the issue concerns which national tort law to apply. However, because international law is not a choice-of-law system, it inherently applies equally to all nations, and the location of tortious acts is irrelevant. FN101 Hence, focusing upon the attribution of the acts rather than their location seems necessary given the nature of international law; to do otherwise would be to introduce illogical distinctions that would tend to destroy any claim that international law has total universality. FN102

2. State responsibility for abnormally hazardous activities conducted within a state's territory: A foundation for liability for extraterritorial activities.

In the preceding section we made the general case for the irrelevance of territorial distinctions in the law of state responsibility. We now make the narrower argument that territoriality is irrelevant at least where abnormally hazardous activities are concerned. There is an increasing willingness on the part of publicists to recognize the international liability of states whose activities cause harm to foreign nationals or expose foreign nationals to an unacceptable degree or risk of harm. Two commentators in particular would assign liability to states whose activities cause harm to foreign nationals outside the state's own boundaries, despite the impact that such a rule might have in placing legal limitations upon activities conducted entirely within the nation's territory.FN103

One commentator, Gunther Handl, has attempted to answer whether, given the accompanying risk, the siting of an abnormally [pg1038] dangerous activity (such as a nuclear power plant) on a state's international border is unlawful under international law. FN104 Handl explores the significant implications of this question on the doctrine of territorial sovereignty. FN105 Finding that decisions of international tribunals only indicate an awareness of the problem of the creation of unacceptable transnational risk, while providing no clear standard for determining their legality, Handl bases his own assessment upon actual state practice. FN106 He concludes that when the risk of harm posed by an activity reaches a certain magnitude, the siting of the activity violates international law, regardless of the low probability that harm will ever occur. FN107 In essence, Handl finds that a second type of sovereignty, that of a state's right to be free from external harm, prevails over the first aspect, a state's sovereign authority to conduct any activity not per se illegal within its own territory.

Professor Handl never directly addresses whether a state sustains liability for harm suffered by foreign nationals as the result of extraterritorial activities. FN108 Nevertheless, his conclusion in part supports our thesis because it discredits the major stumbling block to imposing [pg1039] state liability for extraterritorial harm, that of the traditional doctrine of territorial sovereignty, or Handl's "first aspect" of the sovereignty doctrine. Moreover, Handl's "second aspect," which prevails over the first, is consistent with a regime imposing liability for extraterritorial activities such as the exportation of unsafe nuclear power plants. The right to be free from external harm under Handl's "second aspect" can easily be translated into the right to be free of the infliction of harm that results from exported hazardous nuclear power plants. Handl thus lays a particularistic foundation for the imposition of international liability for extraterritorial activities such as nuclear power exportation.

The second commentator favoring the assignment of liability to states whose activities cause harm to foreign nationals outside the state's own boundaries is the International Law Commission itself. A recent series of its reports, written by Robert Quentin-Baxter, former Special Rapporteur to the Commission, reaches the same general conclusion as Handl. FN109 The Commission intended to study those activities not per se illegal under international law, but which, when conducted by a state within its own territory, cause injury to the persons or property of a neighboring state. FN110 In the "schematic outline" or list of rules prepared in one of the reports, Quentin-Baxter concludes that a state is liable for injuries to foreign persons or property caused by its activities. FN111 He grounds this liability upon an implicit balance between the two aspects of territorial sovereignty discussed by Handl, FN112 and reaches as a synthesis the classic principle of *sic utere [pg1040] tuo ut alienum non laedas*—the duty to exercise one's rights in ways that do not harm the interests of others. FN113

Thus the Commission follows Handl in qualifying a state's sovereign territorial right to conduct hazardous activities on its own territory. This can be interpreted as laying the groundwork for the imposition of state liability for extraterritorial activities. Unlike Handl, however, Quentin-Baxter expressly excludes such extraterritorial application. But his rationale for the exclusion seems to be motivated by political rather than legal concerns: he pleads that the Commission mandated a limitation of the scope of the topic to territorial uses of the environment. FN114 This limitation was apparently not the result of an objective determination of the content of customary international law.

If Quentin-Baxter wanted to proceed slowly for political reasons, and if we are correct that there is neither a logical nor a legal basis for excluding extraterritorial activities, then the Commission's conclusion about territoriality is significantly less important than its insistence that the scope of traditional liability be enlarged for activities that are abnormally dangerous. Later commentary reveals that the imposition of liability upon states for injuries resulting from their extraterritorial activities was, to Quentin-Baxter, politically unacceptable. Underlying Quentin-Baxter's focus on physical activities within the territory or control of the state was his belief that "states remain primarily accountable" for things that happen within their own territory, and that importing nations can protect themselves from the harmful consequences of importing hazardous technology by conditioning their import upon the exporting state's retention of liability. FN115 Of course, this position not only rejects the harm approach, but it begs the question [pg1041] whether, under international law, the population of state *R* has a right against *E* apart from any express warranty that *R* may obtain.

Professor Magraw takes issue with what he sees as Quentin-Baxter's unrealistic view of developing nations' freedom to reject imported technology, though he also prefers the Commission's "physical activity" approach over a "harm" approach. FN116 Professor Magraw sees the transfer that results from the "harm" approach—shifting liability for injuries caused by unsafe technological exports from the importing state to the exporting state—as affecting negatively technology transfers and thus "hamper[ing] the efforts of developing states to modernize and decrease their dependency on imports." FN117 If Magraw is saying that by reducing the rights of smaller nations we encourage them to become self-sufficient, his views appear to be radically paternalistic. Instead he may be making the claim of an automobile manufacturer's spokesperson: that a strict liability rule will require the manufacturer to build safer cars that will necessarily be more expensive, thus depriving *X* number of people who cannot afford the marginal cost increase from having a car at all. But the hidden premise in this claim is that *X* people are willing to ac-

cept unsafe cars. It is true that standard economic analysis postulates a tradeoff between safety and cost, but such analysis is typically court centered; it tends to overlook the legislative initiatives and administrative controls that define and enforce general safety standards on behalf of the public.

We concede that the liability rule we advocate in the present essay may result in fewer nuclear power plants being exported. However, given the magnitude of the potential harm, we contend that a careful shaping of the liability rule according to the principles of the minimum standard and nondiscrimination will result in eliminating from export the unsafe plants. Furthermore, unlike the automobile example, here the ultimate consumers—the people of the importing countries—are only indirectly, if at all, involved in the import decision. The [pg1042] human rights component of international law would therefore have to take into account the possibility that they are operating with less than fully informed consumer freedom. Finally, if Magraw is making a legal argument as opposed to stating a policy preference, he is making an impermissible distinction between states depending upon their degree of relative economic development—a distinction which has no basis in the general norms of customary international law. FN118

C. The Imperatives of Extraterritorial Justice

Heretofore we have argued the case for applying the doctrine of state responsibility to extraterritorial harms. Our goal has been to prove that territoriality is no longer a bar to international liability schemes. Our next task is to explore the bases of an affirmative duty owed by nations to nonnationals living in foreign nations. Is there a positive obligation under international law to do justice to nonnationals residing outside one's own territory such that failing to do so would be a "denial of justice" to them within the concept of the law of state responsibility? While we necessarily deal with this question generally, the present basis for our concern is whether exporting nations owe a duty to do justice to the populations of the importing nations that could be reflected in liability for exporting technology that falls below a given safety standard.

Our first inquiry should be whether a state generally has any moral obligation to do justice to the nationals of another state. Clearly, justice, as H.L.A. Hart puts it, is a branch of morality. FN119 It shares with morality the notion that factors of time and space are irrelevant. FN120 In this respect, a national boundary is an artificial, as well as a morally irrelevant, boundary with respect to moral obligations.

We must next inquire whether there are transboundary moral obligations that also constitute legal obligations arising out of customary law. The international law of war contains moral obligations that are also legal obligations to citizens in foreign countries; most of the [pg1043] prohibitions against war crimes fall into this category. FN121 It follows that in peacetime, a general moral obligation deriving from customary international law is conceptually possible. Specific examples are the fundamental human-rights prohibitions against torture, genocide, and enslavement. FN122

Our question therefore becomes whether the obligation to do justice is encompassed within the general legal obligations under international law owed to nonnationals in foreign countries. We can only conclude provisionally that the obligation to do justice extraterritorially, although part of our general moral obligation as human beings, may or may not be part of customary international law as it has developed up to the present. Yet, the obligation to do justice extraterritorially is clearly not excluded by any customary international law norm. Moreover, it is

consistent with the legal obligation to behave morally toward nonnationals in other countries, with respect to particular moral obligations (again, human rights, humanitarian laws of war) that have developed in customary international law.

Accordingly, we proceed to a third and more particularized inquiry: what conditions must exist to give rise to an extraterritorial obligation to do justice? No such conditions can be found in Aristotle's classic analysis of justice in the *Nicomachean Ethics*. FN123 Aristotle's analysis of justice on its own terms would be contradicted by any thesis that justice is not owed by one person to another because that other person is situated in a different polity.

The post-seventeenth century social contract theorists ostensibly stand for a different proposition: that justice is only relevant within a particular society. True, the writings of Bodin, Hobbes, Locke, and Rousseau do not explicitly confine justice to relationships within a given society or legal system, but their emphasis on "sovereignty" may be a surrogate for such a view. FN124 We will examine this question [pg1044] below in the writings of their modern counterpart, John Rawls.

Yet the "fathers" of international law, although heavily influenced by the doctrines of sovereignty and social contract, had a considerably more expansive view of transnational justice. Because of the relative unfamiliarity of this aspect of the theories of Grotius, Pufendorf, Suarez, and Vattel, FN125 their views are worth brief recitation here.

Grotius argued that kings "have the right of demanding punishments not only on account of injuries committed against themselves or their subjects, but also on account of injuries which do not directly affect them but excessively violate the law of nature or of nations in regard to any persons whatsoever." FN126

Even though Pufendorf was not prepared to go as far as Grotius in advocating military intervention on behalf of nonnationals in egregious cases, he too recognized cases where subjects, persecuted with no semblance of justice by their own ruler, would have a right of forcible resistance. FN127 In such cases foreign kings could lawfully come to the military assistance of such persons. FN128 And Suarez, perhaps the greatest of the Catholic jurists, said that war might be waged on behalf of aliens abroad on condition that they would independently be "justified" in avenging themselves. FN129

[pg1045] Although Vattel placed much more emphasis on "sovereignty" than did Grotius, his view of the duty to do justice was similarly universal:

The universal society of the human race being an institution of nature herself, that is to say, a necessary consequence of the nature of man, all men, in whatever station they are placed, are bound to cultivate it, and to discharge its duties. They cannot liberate themselves from the obligation by any convention or by any private association. When, therefore, they unite in civil society for the purpose of forming a separate state or nation they may indeed enter into particular engagements towards those with whom they associate themselves; but they remain still bound to the performance of their duties towards the rest of mankind; All the difference consists in this, that having agreed to act in common, and having resigned their rights and submitted their will to the body of the society, in everything that concerns their common welfare, it thenceforth belongs to that body, that state, and its rulers, to fulfill the duties of humanity towards strangers, in every thing that no longer depends upon the liberty of individuals, and it is the state more particularly that is to perform these duties towards other states. FN130

Although Vattel erected a strong presumption against external interference in the affairs of government in a state, FN131 he wrote that "if the prince, by violating the fundamental laws, gives his subjects a legal right to resist him, if tyranny, by becoming unsupportable obliges the

nation to rise in their own defense, every foreign power has a right to succour an oppressed people who implore their assistance." FN132

After Vattel, leading international law publicists from Wolff to Oppenheim increasingly adopted a statist or Hegelian conception of sovereignty that simply failed to address considerations of transboundary justice. The twentieth century has seen the pendulum swing back, fueled by the revolutionary conception of international human rights. FN133 At the present time we may say that the classic positions of Grotius, Pufendorf, Suarez, and Vattel have renewed vitality, after the century or so of dormancy under the statist conception.

[pg1046] Nevertheless, social-contract notions continue to cause problems for advocates of transnational justice, if only for the philosophically contingent circumstance that theorists of the social contract have tended to confine their analyses to particular states or societies. The leading modern example is John Rawls, who in his *A Theory of Justice*, FN134 written in 1971, invokes social contract ideology to explicate justice obligations among citizens within a single society. To be sure, his conception of the "original position," in which persons argue for their mutual rights and obligations without knowledge of the social position into which they will be born, could be considered to be equally consistent with lack of knowledge of what country into which they will be born. But when Rawls addresses international law, he unaccountably shifts from a discussion of persons to a discussion of representatives of states. FN135 Suddenly he is discussing states as if they were persons. FN136 As a result, there is a tension in Rawls's work between the rights of persons in a just society and the rights of states in a just international society, for states' rights are not the same as the rights of individuals within states.

On the other hand, Rawls's moral imperatives call for an expansion of effect that logically could not stop at a nation's edge. This is evidenced by his characterizations of the universal traits of persons (which he calls "moral sentiments") and his axiom of the universality of principles: "[P]rinciples are to be universal in application. They must hold for everyone in virtue of their being moral persons." FN137

Given this tension in Rawls's theory, is there any way to interpret it as addressing the question of whether there is an obligation upon persons or states to do justice internationally? Charles Beitz suggests an interesting approach. FN138 Professor Beitz points out that Rawls regards justice as applying in situations where benefits and burdens are produced by "social cooperation." FN139 But because people within society may not always cooperate in social activity, and each person is [pg1047] not necessarily always advantaged by social activity, Beitz reformulates Rawls's baseline contextual requirement as follows: "[T]he requirements of justice apply to institutions and practices (whether or not they are genuinely cooperative) in which social activity produces relative or absolute benefits or burdens that would not exist if the social activity did not take place." FN140 Beitz's reformulation persuasively captures the philosophic underpinnings of Rawls's prescriptions. It is a functional, as opposed to a categorical, definition of the social interactions that Rawls posits as the unit for social justice. As such, it clearly encompasses transboundary relations so long as they in fact produce benefits or burdens that would not exist absent the social activity.

Obviously, the degree to which nations interact will then be a critical determinant of the scope of the justice obligation. Nations that share a common boundary, that constantly exchange goods, services, and visitors, and maintain a high degree of mutual investment in each other's industries, will under this analysis have a much higher degree of duty to do justice than nations

that are only casual trading partners. This higher degree can indeed approach a duty of distributive justice for which Professor Beitz has argued. Distributive justice is clearly the most demanding of the forms of justice, requiring persons to share their surplus goods (or services) with the less fortunate. Rawls's book primarily addresses distributive justice in its delineation of the "difference principle": "Social and economic inequalities are to be arranged so that they are . . . to the greatest benefit of the least advantaged. . . ." FN141

But is such a high level of sacrifice, as exemplified by distributive justice, necessary in state relations under Beitz's theories? The answer seems to be no. One of the bedrock conceptions of justice, emphasized by Aristotle and institutionalized in all of the world's legal systems, is compensatory justice: the requirement that a person who causes injury to another owes that other person financial compensation. FN142 In every legal system of which we are aware, this principle of justice forms the basis for private lawsuits. FN143 Its pervasiveness [pg1048] and fundamentality are manifest. The question is, however, when does compensatory justice apply?

Since the notion of compensatory justice is far more elementary than the notion of distributive justice, and since it requires far less in the way of individual sacrifice (indeed, one might argue that it involves no sacrifice at all because it is merely compensation for an advantage taken that harmed another), the level of social interaction upon which such a duty of compensatory justice may be based is far lower than that which would give rise to a duty of distributive justice. Indeed, applying Professor Beitz's analysis of the basis of the social-contractarian system, the social activity of the sale of goods (here, the export of nuclear power plant technology) necessarily produces relative or absolute benefits or burdens that would not exist if the social activity did not take place. If that social activity is not taken to give rise to the strong obligation of distributive justice advocated by Beitz, at the very least it gives rise to the weak obligation to render compensatory justice.

Arguably, even a single export of a nuclear power plant from *E* to *R* invokes Beitz's relationship theory. Because of the magnitude of potential harm resulting from malfunction of the technology, the people of *R* are in a particularly dependent relationship with *E*; their safety and their lives are potentially in *E*'s hands. In this respect, nuclear power plant exports are distinguishable from most other exports. Even a single export of a nuclear power plant carries with it a greater social responsibility than would a stream of exports of household appliances or television sets.

We have thus argued that the very act of import-export creates a relationship between the parties that on a social-contractarian view of justice—and certainly upon an Aristotelian view—gives rise to expectations of, and a duty of, doing justice, at the very least in the minimal form of compensatory justice. The obligation to compensate the purchasing party for damages resulting from the installation and use [pg1049] of a dangerous product (a nuclear power plant) is an obligation within the modern and generally accepted notion of "justice." Thus, it would be a denial of justice not to furnish compensation to an injured party in appropriate circumstances. FN144

What would be appropriate circumstances is not a matter of legal or moral philosophy, but rather is a matter of the application of the customary international law of state responsibility to the exportation of nuclear power plant technology. We therefore move to a discussion of the application of the principles of minimum international standard and nondiscriminatory treatment to the extraterritorial context of malfunctions of exported nuclear power plant technologies and injury resulting therefrom.

IV. APPLICABILITY OF THE DOCTRINE OF STATE RESPONSIBILITY TO NUCLEAR POWER EXPORTATION

A. Types of Safety Problems

We have argued thus far that the classic doctrine of "state responsibility" should be applied extraterritorially to the exportation of nuclear power plant technology. We now explore the applicability of the two components of the doctrine of "state responsibility" to the specific safety problems of nuclear power plant technology exports. We will consider three generic types of safety problems involved in nuclear power plant technology so that we may then apply the relevant norms of international law to each type of safety concern:

TYPE I: A plant designed for export that does not meet domestic standards for design or safety systems.

TYPE II: An inherently dangerous plant designed for the purpose of export. For example, one could argue that the graphite system used in the Chernobyl nuclear power plant is inherently dangerous for use in an exported power plant. The Chernobyl plant did not contain the extensive concrete shielding common to U.S. nuclear plants. FN145 Type II thus refers to the kind of designs that for whatever reasons are acceptable domestically, but that may nevertheless pose too significant [pg1050] a safety hazard if exported without the additional safeguards required by the domestic law of the exporting country.

TYPE III: A plant that was manufactured negligently. A negligently manufactured cooling system, for example, might pose an unacceptable health hazard, even though the cooling system itself could render a plant reasonably safe if it were constructed nonnegligently.

With these three types of safety issues in mind, let us now turn to the two principles of state responsibility.

B. The International Minimum Standard

We contend that under the international minimum standard, *E* could theoretically be liable for all damages incurred by *R* (its population and property) for a nuclear power plant "accident" caused by any of the three types of safety problems outlined above. Type II accidents pose the strongest case for *E*'s prima facie liability, while legal and evidentiary arguments can be advanced that could diminish or curtail liability with respect to Type I and Type III accidents.

A Type I accident does not of itself make out an international claim. Nuclear power that does not meet *E*'s own domestic safety standards may or may not meet international standards. Consider, for example, a catastrophic meltdown of the technology exported by *E* and situated in nation *R*. *R* could conceivably argue that the fact that the exported technology failed to meet *E*'s domestic standards proves that it was so unsafe that it also fell below the international minimum standard. Such an argument, while theoretically possible, is subject to two significant countervailing legal considerations. First, assuming that an international minimum standard exists, its content would be independent of any one nation's domestic safety standards. *E*'s internal standards might indeed be above, below, or at the international minimum level.FN146 Second, assuming that an international [pg1051] minimum standard exists and that it was violated by *E*'s exportation, *E* and *R* would equally share the guilt. If *E* violated the international minimum standard by exporting the technology, *R* violated it by importing the technology. It would therefore

be difficult for *R* to argue that *E* should be liable to *R*. Further, if the people of *R* were to sue *E*, *E* should be able to implead *R* as a joint tortfeasor. FN147

These legal obstacles regarding attempts to establish *E*'s liability under the international minimum standard in the Type I situation come out differently in the Type II and III situations. Under both Type II and Type III, *E* has reason to know, based on expertise and experience, that *R* would subject its population to unacceptable risk if it were to proceed to construct such a plant.

Also, whereas the Type I model requires that an international standard have a specific content and be at a higher level than *E*'s domestic standard, in the Type II and Type III cases the content of the international minimum standard need only be shown to coincide with general principles of tort liability. In other words, the international minimum standard need only comport with the principle that intentional delivery to a user of an unsafe and extremely hazardous product subjects the deliverer to liability for foreseeable damages. Thus, under Type II, if *E* allows the export of power plant technology that is designed to be emplaced in high, dry, and rocky terrain, knowing that *R* will erect the plant in a low, wet, coastal area, *E* arguably violates the international minimum standard. Or, under Type III, if the officials of *E*, in approving the exportation of certain nuclear power plant technology, know or have reason to know that it was designed or manufactured negligently (perhaps so as to reduce drastically design or manufacturing costs), *E* is arguably liable to the people of *R* in the event of an accident that was the foreseeable result of such negligence. Certainly the officials of *E* are in a better position to know about such negligence than are the officials of *R*. Indeed, the higher and more complex the technology, the more the manufacturer will [pg1052] know about its potential defects, and the less the purchaser can possibly know.

To posit theoretical liability, however, is a long way from claiming that such liability is easily proven. Indeed, only in the most egregious situations could actual liability be shown, even in Type II and Type III situations. In Type II situations in particular, an international consensus among experts that the design is inherently too dangerous to be used in the way that the receiving nation plans to use it needs to be shown. And the evidentiary problems inherent in proving a plant part was negligently manufactured would be formidable in Type III situations.

C. The Nondiscrimination Standard

The second branch of the international law of state responsibility accords to aliens non-discriminatory treatment in comparison to citizens. In the nuclear export context, this prescription would translate into a requirement that *E* cannot export power plant technology that would not meet *E*'s own internal safety standards. Thus, that we have called Type I would be prohibited under such a requirement. FN148 From the perspective of international human rights, the stringent nondiscrimination standard is, at least in the abstract, desirable: Why export a less safe product than we are willing to accept at home? Unfortunately, because of the nonuniformity of domestic standards among exporting nations, the inevitable result of such a standard is to reach quickly the lowest common denominator—the exporter with the least stringent safety requirements domestically would obtain a competitive advantage over all other exporters. Equally undesirable is the likely domestic impact: nation *E* might decide, in order to maximize its export potential, to lower its internal safety standards. Unless importing nation *R* is extremely sophisticated, *R* is likely to buy from the exporter having the lowest internal safety standards [pg1053] because of the lower cost of the technology. The likely result of the enforcement of the nondiscrimination standard is the perversion of its rationale within the law of state responsibility.

The very lack of uniformity among domestic safety standards of exporters signifies a willingness by different populations to tolerate different degrees of safety in return for electric power. There is no nonpaternalistic reason why this same diversity of risk-taking should not apply to importing as well as exporting nations. In the absence of an international regulatory authority that would prescribe uniform standards, the cost/safety tradeoff is a matter for individual determination by a nation (with the exception, as we have argued previously, of safety that is compromised below the international minimum standard). The question, then, is how to relate the law of state responsibility's nondiscrimination principle to this diversity of safety toleration among nations.

We contend that as to Type I plants, the exporter at minimum has a duty under the principle of nondiscrimination to make full and effective disclosure to the importer of precisely whether, how, and why the exported plant fails to meet domestic licensing standards. If *R* chooses to buy a plant that would not meet *E*'s domestic standards, that choice ought to be available to *R*. Once such disclosure is made, and *R* is fully informed, *E*'s duty is discharged and no further liability ought to be attributable to *E*.

The idea of "effective" disclosure warrants brief elucidation. The importer generally, and developing-nation importers in particular, cannot be expected to have the same degree of expertise regarding the hazardous nature of nuclear power plants as does the exporter. To that extent, there is a range of potential communication problems. One cannot assume, for example, that a technical document detailing domestic licensing standards and specifying the deviations from those standards reflected in the design of the plant would constitute effective disclosure. Instead, the disclosure standard should be analogous to "informed consent" in medicine, where one finds a gulf between the expertise of doctor and patient. FN149 Informed consent in that context is [pg1054] nevertheless possible if stated in clear and ordinary language and if the risks are assigned numerical probabilities. A similar procedure should be applied to nuclear power plant exports if the exporter wishes to avoid liability for an accident in a Type I situation.

The idea of full and effective disclosure comports well with the nondiscrimination principle of the law of state responsibility. That principle, as we have seen, never required that aliens receive all the benefits and incidents of citizenship, but rather that they not be discriminated against in fundamental matters affecting their personal rights and freedoms. The issue of safety in nuclear power plants involves matters of life and death. Surely one can hardly ask for a more fundamental right than the right to live. But like many other incidents of a technological age, the real question is one of risks and benefits. Although thousands of human lives are at risk, the risk also brings electrical power, which is not only considered a "necessity" of civilization, but also saves lives in a very real sense. To increase safety usually means to increase cost. An increase in cost is the same as a deprivation of marginal electrical power: a total deprivation to some people who are economically at the margin, and a partial deprivation to everyone else.

Furthermore, there is a distinction to be drawn between the classic applicability of the state responsibility principle of nondiscrimination to aliens suffering a denial of justice, and the present case of nuclear power exports. In the classic situation, an alien has no choice. He may have been arrested in violation of his rights; he may have been subject to mistreatment in prison; he may have been denied a speedy and effective trial. We can hardly say that he "consented" to any of these deprivations, unless we use a very attenuated notion of consent to include the alien's original decision to be physically present in the country, and in the place and at the time where he was in fact arrested. In contrast, *R* has consented to the importation of the power plant tech-

nology. To be sure, depending upon how "democratic" *R* is, the people of *R* may not have individually consented to or ratified this importation. FN150 Yet even in a nondemocratic *R*, the people are accepting the benefits of electrical power. Their government [pg1055] was not forced to import the nuclear power plant technology. Thus, when we compare the classic case of denial of justice to an alien with our current case of nuclear power imports, we find in the latter a larger element of consent.

Nevertheless, too much should not be made of this distinction. No one has really "consented" to use a product that results in the user's death. And if *R* is a dictatorship, the people of *R* have not consented to the importation of the power technology in any meaningful sense. FN151 Even so, international law does not take a deistic or paternalistic view of national choices; to second guess nations such as *R* that import dangerous technology would contradict the generally accepted principle of equality among nations. Rather, it is our contention that a reasonable interpretation of the nondiscrimination branch of the law of state responsibility in the present context requires *E* to give full disclosure and *R* to acknowledge informed consent.

At a deeper level, however, the nondiscrimination principle is indeed met by the requirement of full disclosure and informed consent. Consider the citizens of *E*. The safety standards that they have accepted internally represent a tradeoff between risk and cost. At some point, they decide that a marginal increase in safety is not worth an incremental increase in the cost of electric power. Knowing what the cost factors and the safety-risk factors are, they reach an accommodation that they are willing to live with. All that the nondiscrimination principle requires, in our view, is that the same knowledge of the tradeoff between safety-risk and cost be conveyed to the purchaser *R*. If the people of *R* make a different decision as to where a marginal increase in safety is not worth a cost increment, they have the right to make such a different decision. They would only be "discriminated against" if the knowledge of the safety and cost factors that were available to the people of *E* were not made available to the people of *R* or their governmental representatives. Hence, the nondiscrimination [pg1056] principle is satisfied if full disclosure is made to *R* as to the factors involved in the tradeoff between safety and cost.

D. Possible Mitigating Strategies

Although liability of the exporting nation, under any of the three types of situations we have depicted, should be an extreme rarity, the possibility of enormous liability raises interesting tactical questions. For example, can *E* avoid liability by announcing a free export policy, whereby no export license is required? Part of the Commissioner's concern in the Philippine case was indeed a fear that official United States scrutiny of the Westinghouse plant might subject the United States to liability should an accident occur at the Philippine plant, implying that lessened scrutiny might leave the United States in a preferred position. However, because liability may be found under the doctrine of state responsibility for nonfeasance as well as for misfeasance, FN152 we argue that *E* is liable irrespective of whether it makes any effort to supervise the safety of its exports. *E* should have prevented the export of extremely hazardous nuclear power plant technology even if it in fact did not do so. Certainly international law knows no doctrine to the effect that a state is in a better position if it ignores extraterritorial hazards than if it monitors them. FN153

One likely effect of such a liability scheme raises intriguing and difficult questions. Faced with potential liability resulting from the export of Type I and II plants, exporting nations may attempt to shift the liability to the designer-manufacturer of the plant or to the importing nation

or to both. With respect to the manufacturer, the exporting nation is unlikely to succeed. No design or manufacturing company would risk bankruptcy in accepting liability for a potentially disastrous meltdown or explosion of one of its plants in a foreign country. No chief executive would "bet the company" on a single export, no matter how much profit was assured. Nor is insurance for [pg1057] such a disaster available. In the United States, nuclear power plants are uninsured (except for a very small amount); even consortiums of insurance and reinsurance companies are unwilling to insure such plants. Under the Price-Anderson Act, owner liability is limited; FN154 the population in the area surrounding the nuclear power plant is, in effect, self-insured. FN155 A fortiori, no manufacturer or insurance company would accept liability for accidents abroad, where the damage awards in an unfamiliar foreign legal system might greatly exceed those in the United States. FN156

Even if a manufacturer were willing to accept liability, the magnitude of the potential damage in the case of a catastrophic accident would mean that *R* and the people of *R* would hardly begin to be compensated, if all that were available for compensation were the assets of the manufacturer. In practice, then, the "deep pocket" is nation *E*. Since *R* and the people of *R* are most likely to want recovery from *E*, *E* is most likely to ask for a waiver. Thus, before allowing the export of the nuclear plant technology to *R*, *E* may require that *R* sign a waiver absolving *E* of any claims that *R* or the people of *R* might have against *E* for any and all of the three types of safety problems we have depicted. A well-drafted waiver would guarantee *R*'s consent to the importation of a dangerously defective plant, and a listing of a full range of possible defects would accompany the waiver.

Prior to 1978, the United States regularly included the following article in all government-to-government agreements covering the export of special nuclear material, source material, and nuclear facilities [pg1058] under the Atomic Energy Act of 1954: FN157

The application or use of any information (including design drawings and specifications) and any material, equipment and devices, exchanged or transferred between the Parties under this Agreement or the superseded Agreement shall be the responsibility of the Party receiving it, and the other Party does not warrant the accuracy or completeness of such information and does not warrant the suitability of such information, material, equipment and devices for any particular use of application. FN158

This warranty disclaimer, which may not be as legally protective of the exporter as would be an explicit waiver of liability, was nevertheless discontinued by the United States after 1978 on the grounds that it was no longer considered appropriate for inclusion in a government-to-government agreement after the passage of the Nuclear Non-Proliferation Act of 1978. FN159

The international-law question is whether, where *E* requires *R* to sign an agreement containing a warranty disclaimer or a waiver of liability, such an attempt to shift liability would be binding on the people of *R*. A conceivable scenario is the following: *E* specifies that the Type I plant it plans to ship to *R* (at low cost) would never meet *E*'s own internal safety standards. Or *E* specifies that the Type II plant it plans to export to *R* (at low cost) is inherently dangerous and unsuitable for *R*. *E* adds, however, that if *R* wants the plant anyway, it can give its written consent to being held fully liable and to indemnify *E* against any and all claims, including claims presented by *R* or the people of *R*. And in the Type III case, *E* asks that *R* waive any [pg1059] and all claims resulting from negligence in the manufacture of the plant and to hold *E* harmless against any such claims.

Should international law respect such a waiver? In most areas of law, indemnification agreements and waivers of liability are favored under the principle of general freedom of contract. Sometimes, however, such agreements are void as a matter of the public policy to do substantial justice, especially in the case of torts resulting in serious injuries. FN160 Although there is no "public policy" argument in international law, there is a related principle of *jus cogens*, which renders void certain provisions in treaties (an easy example being a treaty providing for slave trade). FN161 With respect to the international minimum standard, we are dealing with a fundamental denial of justice which, analogizing to the *jus cogens* principle, is not waivable or transferable to another party. When applied to nuclear exports, it follows that, as a general rule, an exporting nation should not be allowed to transfer liability for the plant's dangerous defects to the importing nation.

Consider a plant that is clearly unsafe in its design such that a major accident can reasonably be anticipated to occur. That *R* wants to buy such a plant and is willing to accept all liability is not a sufficient reason for *E* to sell it. International law is no different from domestic law in this respect: a foreseeable major accident should not be made more probable because one party to a transaction is able to use a legal form (e.g., a waiver agreement) that ostensibly insulates it from any responsibility for the accident. Indeed, the pervasiveness of such a principle in domestic legal systems is a good argument for lifting it into international law as a "general principle of law." FN162

[pg1060] Over and above the interest in preventing such large-scale catastrophes, however, is the very real possibility that the consent of the leaders of *R* to the transaction does not represent the consent of the people of *R*—the ones most vulnerable in the case of a large-scale accident. The ultimate victims of a nuclear power plant catastrophe are the people of an importing nation, not its government. FN163 Consequently, our concern should be with the protection of their human right to determine the risks they are willing to withstand.

It may well be argued that the population of *R* will always be worse off if waiver is permitted, regardless of whether the choice to waive liability is theirs or that of an uncaring leader. In countries where the defense of sovereign immunity does not exist, the population may have a claim against its own government. In those countries, from the population's viewpoint, there is no "consideration" to shift liability from *E* to *R*, since *R* is already fully liable. Even if "consideration" takes the form of a lower price to *R* in return for exoneration of *E*, the population would be made worse off rather than better off by any such "consideration," because its practical effect would be to encourage (by the reduction in price) the importation of the unsafe nuclear power plant. Hence the "consideration" would be less than worthless as far as the population is concerned, since they would be better off not receiving the plant at all.

The situation will be the same in the many developing countries where governments are shielded from the claims of their citizens by the doctrine of sovereign immunity. Here exoneration of *E* arguably means that *R* has self-insured against the risk of accident. The argument would be that if the government of *R* waives a claim against *E*, the people of *R* are no worse off. However, as a practical matter, the people are still worse off. In the event of a major accident, *R* would not be able to sue *E* for damages because of the waiver agreement. Yet the catastrophe may be such that *R* has no funds to help the irradiated and injured populace. Hence, here too there is no "consideration" for the transaction, making the people of *R* worse off by an agreement exonerating *E*.

[pg1061] Obtaining informed consent from the population of *R* to the waiver is one way out of the dilemma. But in what sense could the population itself consent to a substandard nuclear power plant? It is impractical in the extreme to expect a population to give informed consent to an issue as complex as the safety of a new nuclear power plant. Even a literate population of a democratic country could hardly be expected to give informed consent, let alone the populations of developing countries. Thus we must inquire whether the government is the organ that properly should give consent on behalf of the population. Normally it is assumed that a government represents its people. Yet this assumption is challenged by situations such as that of President Marcos of the Philippines, whose primary motive in acquiring the Westinghouse plant was the prestige associated with nuclear power. FN164 To be sure, some would argue that Marcos, by definition, was acting on behalf of his population, since he was, for better or worse, the leader of their government. But this argument, a vestige of "realpolitik" and mutual-security alliances, is crumbling today in the light of human-rights concerns and a more realistic view of popular sovereignty. FN165

But the question of informed consent runs deeper than the mere issue of whether a government truly speaks for its population. Consider a tourist who is warned not to travel to a certain country because its police are corrupt and might "kidnap" the tourist, threatening to throw him in jail unless he comes up with bribe money. Does a tourist who nevertheless travels to such a country legally assume the risk of such illegal police behavior? Under the international minimum standard of state responsibility, the tourist certainly does not. That standard would never have evolved if it were held that aliens assumed the risk of known corruption or illegality among the police or bureaucracy of the host country. Instead, irrespective of the tourist's knowledge or implied actual consent (actual consent was often obtained by the police under threat of torture), the tourist has always retained an international law cause of action against the host government under the international minimum standard of state responsibility. Analogously, with respect to popular consent through a [pg1062] government to the importation of an unsafe nuclear power plant, the consent should not be held to absolve the exporter of liability to the population of the receiving government.

This result accords interestingly with the strategy developed in the nineteenth century under the "Calvo doctrine" in the field of state responsibility. The host country would typically insert a clause into its governmental contracts with foreigners that the foreigner explicitly waived any diplomatic protection and chose to litigate any contractual disputes solely in the host country's courts. FN166 Suppose an American dredging company signed such a contract prior to commencing work for the Mexican government and later chose to litigate a contract dispute not in Mexican courts, but in an American court or in the court of a bilateral claims commission. While in such cases the waiver was held inoperative, it was on the ground that the company lacked standing to waive a right of its own government. Diplomatic protection is a right of the United States, not the company, and hence may be asserted irrespective of the company's waiver.

As applied to the nuclear power plant situation, the Calvo doctrine would protect the population of *R*. Even though the government of *R* may sign a waiver exonerating *E* from liability, *R* lacks standing to waive the international human-rights claims of its own population. The international law of human rights transcends any bilateral law under which *E* and *R* execute a waiver, just as in the Calvo experience the international law of state responsibility transcended any waiver executed between Mexico and the dredging company. In the Type I and Type II situations—exceedingly rare though they may be—the exporting nation is liable to the people

suffering the damage. The exporter is the injurer; the people are the injured; and nothing either the exporting or importing governments may decide between themselves should change this international law result.

V. UNIFORM INTERNATIONAL REGULATION OF NUCLEAR POWER TECHNOLOGY EXPORTATION

We would have to be particularly morbid to write an article directed solely to the question of liability following a catastrophic nuclear power plant accident. Our purpose is to help prevent such accidents. In that respect our purpose coincides with that of tort law [pg1063] in general. As Judge Posner has shown, the primary purpose of the law of torts is deterrence; only second is the provision of compensation. FN167

The application of the two pillars of the doctrine of state responsibility—the international minimum standard and the nondiscrimination standard—to the exportation of nuclear power plant technology provides only a very low "floor" and a very high "ceiling." On the one hand, although the minimum standard principle disallows exportation of nuclear technology below that of the minimum standard, it is a very low standard and hardly provides adequate protection. On the other hand, although the nondiscrimination principle's full disclosure rule will in many cases be adequate, often it simply will not apply to a nation's exports. In the case of an exporting state which has no domestic nuclear power regulations, its exports will not be impeded by a full disclosure requirement, because there will be practically nothing to disclose. Likewise, as indicated above, there are many situations in which "effective" disclosure is not possible. FN168 Disclosure and its effectiveness will vary with the participatory character of a given nation's government, as well as with its accountability, domestically and internationally.

Even in situations in which the duty of full disclosure will apply, market mechanisms may significantly detract from its effectiveness in ensuring the safety of nuclear power exports for two reasons. First, the nuclear power market's highly competitive and decentralized nature could trigger a "race to the bottom"—an economic phenomenon wherein nations attempt to capture the greatest market share by adopting the lowest and most permissive domestic standards practicable. So long as a decentralized market exists, profit-maximizing nations can be expected to engage in opportunistic pursuits of the limited number of nuclear power contracts available. Second, the decentralized nature of the market allows for the overlapping of the provision of technology from various exporting nations. Thus, even [pg1064] where the full disclosure rule applies, its usefulness in assessing the overall safety of the plant will be severely undercut.

We believe that an international regulatory authority, in addition to international tort law, is needed to adequately address the problem of unsafe nuclear technology. FN169 Such an authority could devise uniform disclosure rules for regulating nuclear power plant exports to supplement the exporter's duty of full disclosure. First, such uniform rules would make it easier for the receiving countries to compare competing technologies. Second, raising the safety standards would be consonant with competition in a free world market. Every nation would compete on the basis of the same safety standards, so that competition would not take the form of skimping on safety features. Rather, competition would be based, as it should be, on price, design, performance, and service. Third, any "race to the bottom," to the disadvantage of the citizenry in the exporting nations, would be eliminated. Most importantly, the international regulatory authority could develop uniform standards that are above the international minimum standard.

Not all aspects of nuclear power exportation, however, are susceptible to international regulation, even where safety concerns may be relevant. Because the design, construction and even operation of nuclear power plants are often unique to certain nations, the safety aspects of nuclear power exportation should be spread out along a continuum, ranging from those most susceptible to international regulation to those least susceptible. The former consist of those aspects of nuclear power production that could easily be made uniform among all nuclear exporting and importing states. Illustrations of these are plant siting and plant radiation emission levels. As demonstrated by the Philippine nuclear plant, a plant's distance from an active volcano and population centers is a major safety concern. FN170 Uniform international standards could be devised to govern the minimum allowable distance between a nuclear plant and a volcano or town, thereby substantially reducing the risk that a nuclear accident [pg1065] could be caused by volcanic action or that population centers would be subjected to close-in radioactive fallout. Along with site specifications, the daily maximum amount of radiation a plant could emit on a periodic basis could be regulated internationally. Once a safe ambient level was determined, the plant's designers and operators would be responsible for ensuring that the plant's emissions, minus the natural atmospheric radiation levels, did not exceed that level.

Slightly less susceptible to international regulation, but nevertheless capable of complying with worldwide safety standards, would be the installation of certain coherent plant safety systems. These may include fire protection equipment or a "scram" or shut-down system that turns the plant off automatically in the event of an operating failure. FN171 Although these and similar systems would vary with the plant's size and design, they are unrelated to the plant's actual production of electricity. Therefore, requiring that each plant include them and that they measure up to certain operating standards could, to a certain extent, be imposed on an international scale.

At the other end of the spectrum, there are certain aspects of the safe production of nuclear power which are not at present technologically susceptible to international regulation. These are safety concerns that are controlled by unique features of the plant such as the actual design of the reactor or its steam generator. Equally immune to international regulation are safety risks consequent to the interface of technology from several different sources in one plant. Subcontracting for the construction or design of facilities outside the nuclear steam supply system or the "balance of plant" such as the containment structure or auxiliary buildings is a common practice among cost-avoiding developing nations. FN172 According to one nuclear engineer, this introduces not only "obvious interface problems including the use of varying design criteria and safety requirements, but also may result in the use of components and systems that differ materially from those being constructed or in operation and reviewed in the country of origin." FN173 Although international standards may be powerless to regulate the safety aspects of the plant's unique design, and must be controlled through the exporter's duty of full disclosure, [pg1066] international regulations can prescribe certain procedures to minimize the risks inherent in a plant built with the technology of many different nations. These may simply require good-faith joint consultations between the different national subcontractors and the necessity that each review the others' plans and incorporate the others' design as much as possible.

The existence of barriers to uniform regulation of the "balance of plant" considerations illustrates that international regulation cannot resolve all of the potential safety problems of an exported nuclear power plant. Nevertheless, this does not detract from the very real benefits of international regulation of those aspects of a plant's design and construction that are susceptible to

uniform regulations. International regulation is capable of promoting marketable plants that include safety features, as well as preventing nuclear power exports from falling to the very low level of the minimum international standards of treatment.

Neither the international law of state responsibility nor an international regulatory authority should be viewed as a replacement for each other. Both have roles to play. As legal researchers, we naturally have emphasized the doctrinal analysis, which in principle is independent of the existence of an international regulatory authority. But if we were lobbyists for a safer world, we would be advocating a constitutive treaty to set up an international nuclear regulatory authority with plenary and mandatory power to set uniform safety standards for the export of all technology related to nuclear power plants.

FOOTNOTES

*Professor of Law, Northwestern University School of Law.

** Attorney, Office of the General Counsel, U.S. Environmental Protection Agency. [2010 note: Kirsten H. Engel, Professor of Law, James E. Rogers School of Law, University of Arizona.]

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***Numbers in the format pg1011 etc. refer to the pages in the original article.

FN1 The nuclear power reactors exported to the developing nations often contain potentially serious safety defects. Most of these reactors would not pass the safety review carried out by the exporting nation on its own domestic reactors. The nuclear export business of the American company, Westinghouse, provides many examples. For instance, the reactor exported to Brazil by Westinghouse Corporation encountered so many operating difficulties that Brazil stopped payments on the reactor in May 1982. Export-Import Bank Programs and Policies: Hearings Before the Subcomm. on Int'l Fin. and Monetary Policy of the Sen. Comm. on Banking, Housing and Urban Affairs, 97th Cong., 2d Sess. 374 (1982) (statement of Virginia Foote, Associate Director, Center for Development Policy). Westinghouse nuclear reactors of the Brazilian design exported to Spain, Sweden, and Yugoslavia have reported the same problems that plagued the Brazilian reactors. *Id.* The Westinghouse reactor exported to the Philippines, discussed in detail *infra*, is referenced to the Brazilian reactor. *Id.* at 375. It too has encountered safety problems and could not be built in the United States as it does not include all post-1973 requirements for reactor safety. *Id.* at 376. Yet another Westinghouse plant exported to South Korea has had difficulties caused by disorders in its secondary cooling system. However, these problems may be due to the work of South Korean workers and not the exporters. *Id.* The presence of safety defects in nuclear plants exported by other nations is suggested in several essays included in Nuclear Power in Developing Countries: An Analysis of Decision Making (J. Katz & O. Marwah eds. 1982) [hereinafter Katz & Marwah]. For example safety concerns, together with cost considerations caused the People's Republic of China to suspend a contract to import nuclear power technology from France in the Spring of 1979. The nature of China's safety concerns is not specified, however. *Id.* at 129. In 1977, the Baroda nuclear power plant in India experienced a major accident and was subsequently shutdown. This plant was built with foreign technology and the plant failure was attributed to poor design standards and problems associated with the quality of metal at the plant. *Id.* at 173.

FN2 See Notice of Application to N.R.C. for Licenses to Export Nuclear Facilities or Materials, 53 Fed. Reg. 16,800 (1988).

FN3 Robert Quentin-Baxter, former special rapporteur for a special study of the International Law Commission, reported that it was suggested to the Commission that the state of which a multinational corporation is a national should be liable when it exports dangerous industries to developing states and harm results. International Liability for Injurious Consequences Arising Out of Acts Not Prohibited by International Law: Third Report by Mr. Robert Q. Quentin-Baxter, Special Rapporteur at 20, U.N. Doc. A/CN.4/360 (1982) *reprinted in* [1982] 2 Y.B. Int'l L. Comm'n at 60-61, U.N. Doc. A/CN.4/SER.A/1982/Add.1 (Part 1) [hereinafter Quentin-Baxter's Third Report]. This is the essence of the thesis we advance. Quentin-Baxter, writing on behalf of the Commission, rejected the imposition of such liability, however. Rather, the Commission's study is limited to "activities and situations which are within the territory or control of a State, and which give or may give rise to a physical consequence affecting the use or enjoyment of areas within the territory or control of any other State." International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law: Fifth Report by Mr. Robert Q. Quentin-Baxter, Special Rapporteur at 1, U.N. Doc. A/CN.4/383 (1984), *reprinted in* [1984] 2 Y.B. Int'l L. Comm'n 155, U.N. Doc. A/CN.4/SER.A/1984/Add.1 (Part 1) [hereinafter Quentin-Baxter's Fifth Report]. This limitation has been supported by one commentator. See Magraw, The International Law Commission's Study of International Liability for Nonprohibited Acts as it Relates to Developing States, 61 Wash. L. Rev. 1041, 1057-58 (1986).

That the exporting nation may have liability under international law to the population of the importing nation has not been advanced by any other commentator in the field. See, e.g., Handl, An International Legal Perspective on the Conduct of Abnormally Dangerous Activities in Frontier Areas: The Case of Nuclear Power Plant Siting, 7 Ecology L.Q. 1 (1978) (placement of hazardous activities where there could be transboundary effects may violate international law); Jenks, Liability for Ultra-Hazardous Activities in International Law, 117 Recueil des Cours 99 (1966-I) (discusses international conventions which place liability for nuclear damage on the operators of a nuclear installation); State Responsibility and Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law, 16 Netherlands Y.B. Int'l L. 1 (1985) (series of articles concerning liability of states for injurious consequences).

FN4 Quentin-Baxter's Fifth Report, *supra* note 3, at 155-56; Handl, *supra* note 3, at 3; Jenks, *supra* note 3, at 145.

FN5 This is the position taken by the International Law Commission and one commentator on the Commission's study of international liability for nonprohibited acts. In limiting the proposed liability scheme to physical transboundary harm and thereby excluding liability for hazardous exports, Quentin-Baxter argued that states remain "primarily accountable" for activities occurring within their own territories, Quentin-Baxter's Third Report, *supra* note 3, at 48; see also Magraw, *supra* note 3, at 1046.

Often the government of the nation where the accident occurs retains broad sovereign immunity and the nation's legal system does not have an advanced tort doctrine, thus making such suits difficult. In India, at least, in addition to an absence of an advanced tort doctrine in the nation's legal system, the government's retention of broad sovereign immunity would apparently bar litigation against the Indian government for regulatory failures possibly contributing to the

leak of toxic gases in the Bhopal disaster at Union Carbide. *See* Galanter, *Legal Torpor: Why So Little Has Happened in India After the Bhopal Tragedy*, 20 *Tex. Int'l L.J.* 273, 275-77 (1985).

FN6 For a full description of the catastrophe—what is known about why it occurred and the damage it caused—*see* Malone, *The Chernobyl Accident: A Case Study in International Law Regulating State Responsibility for Transboundary Nuclear Pollution*, 12 *Colum. J. Envtl. L.* 203 (1987). Of course, Professor Malone's discussion of state responsibility is in the context of the potential liability of the Soviet Union for fallout extending beyond its boundaries. The Chernobyl plant was not itself exported; hence it is not an instance of the subject matter of the present Article. Nevertheless, it is instructive to note that the Chernobyl accident occurred despite the existence of safety features found on American reactors. *N.Y. Times*, May 25, 1986, § 4, at 1, col. 1. James K. Asselstine, one of the U.S. Nuclear Regulatory Commission's (NRC) five present commissioners stated that "[a]s with the Soviet reactor, our reactors are not designed to contain large core melt accidents." *Id.* The NRC predicts that the "probability of a meltdown in an American reactor in the next 20 years is nearly 50 percent and that some meltdowns could release even more radiation than at Chernobyl." *Id.* This is significant, considering the generally poorer quality nuclear power plants that are exported from nations such as the United States to developing nations.

Although the Chernobyl accident has been a major set-back to the nuclear industry (KWU in West Germany, one of the world's biggest nuclear-plant builders, has yet to sell a new nuclear plant since 1982), nuclear power plant industry officials plan a comeback starting with efforts to prevent additional accidents. *Wall St. J.*, Apr. 23, 1987, at 28, col. 1.

FN7 *N.Y. Times*, Dec. 1, 1986, at D13, col. 1. The Bhopal accident illustrates the dangers posed by exporting dangerous technology to developing nations. Reports indicate that a host of safety standard violations accompanied the Bhopal accident. The gas leak began two hours after a worker, whose training did not meet the plant's official standards, was told by a superior to wash out an unsealed pipe, a procedure prohibited by the plant's safety standards. *N.Y. Times*, Jan. 28, 1985, at A1, col. 1. Although allegedly built to specifications, two of the plant's three safety systems did not react properly to prevent the accident. *Id.* Furthermore, investigation revealed that the accident could have been averted had a spare tank been empty to receive the overflow of the gas eventually leaked, methyl isocyanate, as required by plant safety standards. *Id.* at A6, col. 1. Since what instruments the plant had were not in working order, the workers were not alerted to the leak or its seriousness early enough to avert the accident. *Id.* For the early stages of the judicial battle over this incident, *see* *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India*, 634 F. Supp. 842 (S.D.N.Y. 1986) (granting Union Carbide's motion for dismissal on forum non conveniens grounds), *aff'd*, 809 F.2d 195 (2d Cir. 1987).

FN8 International Atomic Energy Agency, *Nuclear Power Reactors in the World*, 20-43 (1987 ed.) (tables 11, 12, and 14). As of December, 1986, the United States led the world in nuclear power plant exports to developing nations. The United States had exported, or planned to export, fourteen nuclear power plants to six developing nations: six to Taiwan, two each to India, Mexico and South Korea, and one each to Yugoslavia and Brazil. *Id.* Construction of a fifteenth reactor, exported by the United States to the Philippines, *see* text accompanying notes 23-72, was suspended in 1986. *Id.* The Soviet Union was the second largest nuclear power exporter, with thirteen exports to four developing nations: five to Bulgaria, four to Hungary, and two each to Czechoslovakia and Cuba. *Id.* Canada was next with two exports to India, four to Romania, and one each to Argentina, South Korea, and Pakistan. *Id.* Finally, two reactors exported from France

were under construction in South Korea, and two more French reactors were planned for construction in China. *Id.* In addition to these exports, three developing nations have built, or were in the process of building their own nuclear power plants—India (ten plants), Czechoslovakia (nine plants), and China (one plant). *Id.* The extent to which foreign technology will be used in these ventures is not clear.

This high number of exports may be largely attributed to a slack in the domestic demand for nuclear power reactors within developing nations. *See* Katz & Marwah, *supra* note 1, at 112-13 (absence of dramatic growth in domestic demand has rendered West Germany's Kraftwerk Union dependent on export sales, especially those to Brazil); *Id.* at 232 (due to the decrease in domestic demand, Framatome of France and the United States firms of Babcock and Wilcox, Combustion Engineering, General Electric, and Westinghouse engaged in aggressive competition to gain contracts to export nuclear power reactors to South Korea).

FN9 "Sales of nuclear equipment are becoming government-to-government deals in which price matters less than political promises." Nuclear Exports: Four Down, Few to Go, *The Economist*, Nov. 19, 1977, at 100, 103. For example, Germany's nuclear power plant exporter, the Siemens subsidiary Kraftwerk Union, succeeded in obtaining a nuclear power plant order from Brazil by promising to transfer a "whole package of (sensitive) nuclear technology." *Id.*

FN10 *See, e.g.,* Handl, *supra* note 3, at 39-42.

FN11 *See* Magraw, *supra* note 3, at 1050. Although the International Law Commission argued these problems affected developing states' ability to control polluting activities within their boundaries or across their borders, they apply equally to a developing state's import of hazardous technology.

FN12 *See, e.g.,* Rosen, *The Critical Issue of Nuclear Power Plant Safety in Developing Countries*, 19 *Int'l Atom. Energy Agency Bull.* 12 (1977). Rosen writes that:

At the present time, with little exception, the regulatory organizations of developing countries with active nuclear programmes can be classified as sub-minimal. In many cases they consist of less than 15 full-time staff members associated with nuclear power activities. This minimal staff may not be familiar with the disciplines of nuclear safety and may be in need of extensive training. *Id.* at 18.

A recent article suggests that little has changed in the ten years since Rosen made this claim. The International Atomic Energy Bulletin states that "[i]n providing assistance to developing Member States, the Agency has found that adequate infrastructures were often lacking that would ensure a smooth and successful introduction of nuclear power in developing countries." Csik & Schenk, *Nuclear Power in Developing Countries: Requirements & Constraints*, 29 *Int'l Atom. Energy Agency Bull.* 39 (1987). The article cited manpower and financing as the most critical problems facing developing countries seeking to start up nuclear power programs. *Id.* at 40. *See generally* Katz & Marwah, *supra* note 1, at 107-08 (Brazil); *id.* at 139 (Egypt); *id.* at 253 (Mexico); *id.* at 287 (Philippines); *id.* at 302 (Republic of China); *id.* at 315 (Turkey); *id.* at 332 (Venezuela).

FN13 Rosen, *supra* note 12, at 15. Nor do the exporting nations normally take into account such factors as the dissimilarity of the construction site in the receiving nation (for example, is it near a volcano?) and the admixture of parts from other supplier nations (containment structures, fuel handling systems, steam conversion systems, and rad-waste systems) that typically become integrated into the eventual construction of the plants. *Id.* at 15-17. Six nuclear exporters (the United Kingdom, Canada, Australia, the Federal Republic of Germany, the United

States, and Sweden) have licensing mechanisms. But they require only a showing that the plant intended for export is roughly similar to a plant that is constructed domestically by the same manufacturer and which at one time complied with domestic safety standards.

FN14 In 1980, for example, the NRC partially grounded its plurality decision to grant a license to Westinghouse Corporation for the export of a nuclear power plant to the Philippines on a Filipino government communication that it would regard even a detailed health and safety review of the new reactor as an intrusion upon its sovereignty. In re Westinghouse Elec. Corp., 11 N.R.C. 631, 638 (1980) ("In the present proceeding, the Government of the Philippines has made it clear that a detailed health and safety review of the Napot Point Reactor conducted by agencies of the U.S. Government as part of the export licensing process, would be regarded as an intrusion into its sovereign responsibilities.").

FN15 See *infra* text accompanying notes 23-72.

FN16 See *infra* text accompanying notes 63-72.

FN17 See *infra* text accompanying notes 73-144.

FN18 See *infra* text accompanying notes 94-102.

FN19 See F. Kratochwil, H. Mahajan & P. Rohrlich, *Peace and Disputed Sovereignty: Reflections on Conflict over Territory* (1985).

FN20 See *infra* text accompanying notes 119-44.

FN21 See *infra* text accompanying notes 145-66.

FN22 See *infra* text accompanying notes 167-73.

FN23 *NRDC v. NRC*, 647 F.2d 1345 (D.C. Cir. 1981).

FN24 In re Westinghouse Elec. Corp., 11 N.R.C. 631, 631 (1980).

FN25 *NRDC*, 647 F.2d at 1345.

FN26 See Scherr, *Philippines*, in *Nuclear Power In Developing Countries: An Analysis of Decision Making* 273, 279 (J. Katz and O. Marwah eds. 1982). Sister Aida Velasquez' efforts to obtain information about the plant and to hold public meetings to discuss the plant were impeded by the government of Philippine President Ferdinand Marcos. Eventually Sister Velasquez was forced to seek the support of environmental organizations in the United States and other countries. *Id.*

FN27 *Id.*

FN28 *Id.*

FN29 *Id.* Marcos refused to accept the safety assurances of his own National Power Corporation (NPC) (an entity solely responsible for all new electricity generation in the Philippines after Marcos nationalized all electric power facilities) and demanded that Westinghouse send representatives to Manila to make written safety commitments to him personally. *Id.* This incident was atypical in that in June 1979 public controversy forced Marcos to halt construction of the plant pending a review of the plant by a presidential commission. *Id.* at 285. In November of that same year criticism led Marcos to suspend the construction of the plant unless Westinghouse renegotiated the contract. *Id.* at 287. Although the contract was renegotiated in September 1980, to incorporate some 33 safety improvements, *Id.* at 289, according to a Union of Con-

cerned Scientists' engineer, "the renegotiated contract contains no provisions that would lead to the resolution of even a single unresolved safety issue." Letter from Robert D. Pollard to President Ferdinand E. Marcos (September 21, 1984) [hereinafter Pollard Letter] (updated safety report on the Bataan nuclear power plant) (copy on file with the Virginia Law Review).

FN30 Press reports stated that a close friend of Marcos, Herminio Disini, had been paid a \$50 million commission by Westinghouse for assistance in obtaining the contract from the Philippine government. N.Y. Times, March 7, 1986, at A1, col. 4.

FN31 *Id.*; N.Y. Times, May 25, 1986, § 1, at 16, col. 1.

FN32 *See* Pollard Letter, *supra* note 29, at 2-5.

FN33 Scherr, *supra* note 26, at 280-81.

FN34 *Id.* at 280. This request may have been a signal that the Philippines was not receiving the type of safety information it needed from Westinghouse. An official from the U.S. Atomic Energy Agency (AEC), predecessor to the Nuclear Regulatory Commission, pointed out in the early 1970's that as to nuclear reactors,

U.S. manufacturers have extremely poor records of information disclosure to foreign purchasers; they term many items as proprietary which are readily made available to the U.S. AEC. Designs at times do not reflect all the regulatory items required in the U.S.; at times design innovations are first tried by U.S. manufacturers in overseas reactors. *Id.*

FN35 *Id.*

FN36 *Id.* at 284.

FN37 *Id.*

FN38 *Id.*

FN39 *See id.* at 281; Rosen, *supra* note 12, at 15. In an earlier informal NRC staff review, the Philippines plant was referenced to a Westinghouse plant under construction in Yugoslavia since 1974. This plant in turn had been referenced to a plant under construction in Brazil, which itself had been referenced to a Puerto Rican plant. The latter, ironically, had been cancelled because of seismologic problems before the NRC was able to complete a review of its design. *See* Scherr, *supra* note 26, at 281.

FN40 The Union of Concerned Scientists complained that the Philippines plant suffered from several design problems typical of Westinghouse plants: a faulty core-cooling system, a lack of fire protection features, and a lack of operation reliability of safety equipment in general (especially a method of stemming a major accident by the rupture of a single generator tube). Pollard Letter, *supra* note 29, at 4-5.

FN41 *See id.* at 4 (Philippine Atomic Energy Agency's "inaccurate description of the relatively simple features intended to protect the reactor against high pressure raised concerns that more complex aspects of the design may not be fully understood").

FN42 *See* In re Westinghouse Elec. Corp., 11 N.R.C. 631, 633 (1980). Petitioners specifically requested a hearing on seven issues: (1) the nature and magnitude of seismic and geological risks posed by the site; (2) the reactor design's seismic adequacy; (3) the reactor's environmental impact, including the disposition of spent fuel; (4) health and safety dangers to Philippine citizens; (5) health and safety dangers to U.S. citizens residing in the Philippines; (6) risks

to the operation of U.S. military installations in the Philippines; and (7) generic safety questions posed by nuclear power plants generally, and by Westinghouse designs in particular. *Id.*

FN43 *See* In re Babcock & Wilcox, 5 N.R.C. 1332 (1977) (no jurisdiction to consider the foreign health and safety effects of exports to West Germany); *Westinghouse*, 3 N.R.C. at 739 (no jurisdiction to consider the foreign health and safety effects of export to Spain); In re Edlow Int'l Co., 3 N.R.C. 563 (1976) (no jurisdiction to consider the foreign health and safety effects of exports to India).

FN44 *Westinghouse*, 11 N.R.C. at 631.

FN45 *Id.* at 637.

FN46 *Id.* at 647.

FN47 *Id.* at 638. The Board cited *Edlow Int'l*, a decision to allow the export of uranium fuel to India, in which the NRC stated that it would be "extraordinary" as a matter of international law, for the NRC to claim jurisdiction to regulate an area clearly within the domestic purview of India's regulatory responsibilities. *Id.* at 639 (citing *Edlow Int'l*, 3 N.R.C. at 582). The Board reached a similar conclusion in the *Babcock* case in which the Board sanctioned the export of nuclear reactor components to West Germany. There the petitioners based their claim on previous U.S. court decisions requiring U.S. governmental agencies to prepare impact studies on projects carried out within the territory of foreign nations. The Board in the *Babcock* case distinguished the court decisions cited by petitioners as simply requiring a U.S. agency review of foreign impacts only when the project has substantial domestic effects. Unlike these cases, the Board in *Babcock* claimed a complete assessment of a nuclear export's impact, because it would concern solely foreign effects, would necessarily be an intrusion upon a foreign nation's sovereignty. *Babcock*, 5 N.R.C. at 1343-46. Thus the Board in *Babcock* refused, as it had in *Edlow Int'l*, to grant the petitioner's requests to review the foreign health and safety impacts on the German exports. *Id.* at 1346.

FN48 *Westinghouse*, 11 N.R.C. at 648-49.

FN49 *Id.* at 648.

FN50 *Id.*

FN51 *Id.*

FN52 "Thus, a design review," the Board explained, "would require the N.R.C. to examine the interface of U.S. supplied equipment with systems and components produced in the recipient nation or procured from third-country suppliers." *Id.*

FN53 *Id.*

FN54 *Id.*

FN55 *Id.* at 649. The Board advocated international cooperative efforts as the best means to ensure the safety of the people of the recipient nation. *Id.*

FN56 *Id.* at 666 (Bradford, Comm'r, dissenting).

FN57 *Id.* at 667-68.

FN58 *Id.* at 668-69. Bradford wrote, "The finding that the export is not inimical to the common defense and security or to the health and safety of the public should rest at least on as detailed a review as can reasonably be made. No such review exists." *Id.* at 669.

FN59 *Id.* at 668.

FN60 *Id.*

FN61 *Id.*

FN62 Brief for Petitioners at 25, *NRDC v. NRC*, 647 F.2d 1345 (D.C. Cir. 1981) (No. 80-1477).

FN63 The petitioners contended that jurisdiction to make such a review was provided to the NRC by the 1954 Atomic Energy Act. *Id.*

FN64 *Id.* at 44.

FN65 *Id.* at 47-48.

FN66 *Id.* See NNPA, Publ. L. 95-242, 92 Stat. 120 (codified as amended in scattered sections of 22 U.S.C. and 42 U.S.C.).

FN67 *NRDC*, 647 F.2d at 1368.

FN68 *Id.* at 1368.

FN69 The Republic stated that although it welcomed technical and advisory assistance from the U.S. and international organizations, the international legal principle of comity of nations prevented any other nation from purporting to "substitute its judgment of the health, safety, and environmental implications of the [Napot Point nuclear plant] for the Republic's own." Brief Amicus Curiae of the Republic of the Philippines at 20, *NRDC* (No. 80-1477). The Republic further asserted that Philippine law provided for the creation of numerous agencies staffed with skilled professionals who are charged with the responsibility of assessing the health, safety and environmental impacts of a nuclear power plant.

FN70 *NRDC*, 647 F.2d at 1357-58.

FN71 *Id.* at 1359-61. Before discussing the legality of the Board decision to review the Philippine nuclear power export under applicable U.S. statutes, the court discussed the effect of the review proposed by the petitioners upon the foreign relations of the U.S. The court determined that such a review would impede the foreign policy objective underlying the Atomic Energy Act, that of promoting nonproliferation policies by selling as much nuclear equipment and facilities to foreign nations as is needed, and thereby attaching nonproliferation conditions to the contracts of sale. *Id.* at 1360 (purpose of Nuclear Non-Proliferation Act (NNPA) to "enhance our position as a reliable supplier of nuclear fuel to nations which share our antiproliferation policies," quoting 123 Cong. Rec. H9831 (daily ed. Sept. 22, 1977) (statement of Rep. Bingham), *reprinted in* Cong. Rec. Serv. Legislative History of NNPA at 873-74.) The court found that "inviting an administrative review likely to trench on foreign sensibilities," such as the proposed foreign health and safety review, "could thwart the overall purpose" of the NNPA. *Id.* at 1361.

FN72 See *In re Westinghouse Elec. Corp.*, 11 N.R.C. 631, 671 (1980) (Bradford, Comm'r, dissenting).

FN73 Restatement (Third) of Foreign Relations Law of the United States § 711 (1986) [hereinafter Restatement].

FN74 It is possible that the authors of the Restatement did not advert to the question we raise in the text whether all the provisions of § 711 apply only to matters that occur within the territory of the state that may be held responsible. In comment (c) the authors seem to be talking about aliens admitted into residence or illegal aliens present in the territory. On the other hand, where violations of human rights are concerned, the Restatement explicitly extends state responsibility extraterritorially to nationals of foreign states. *Id.*

In any event, we do not attempt to hold the Restatement to a rule that must be given extraterritorial effect; we simply note that the Restatement does not rule out extraterritoriality in § 711. In the following discussion we give reasons why a territorial limitation does not comport with the logic of the rule of state responsibility itself.

FN75 E. Borchard, *The Diplomatic Protection of Citizens Abroad*, § 133, at 350 (1915); A. Freeman, *The International Responsibility of States for Denial of Justice* 124-25 (1938).

FN76 In this respect, even if the nonnational is accorded treatment consistent with the first principle (the international minimum standard), he may still be entitled to a higher standard of treatment if he can show that he would have been accorded such a higher standard had he been a citizen. *See* Restatement, *supra* note 73, § 711 comment f ("Discrimination against aliens in matters that are not themselves human rights may nonetheless constitute a denial to the individual of the equal protection of the laws."); Harvard Univ. Law School Research in Int'l Law, *The Law of Responsibility of States for Damage Done in Their Territory to the Person or Property of Foreigners*, Art. 5-8 (Tent. Draft No. 2 1929) (relating to the nondiscrimination principle in the alien's access to and treatment by the judiciary).

FN77 *See, e.g.,* France (Fabiani) v. Venezuela, 5 Moore Arb. 4877 (1903) (failure of court to render a decision); Jones, 4 Moore Digest of Int'l Arb. 3253 (1898) (excessive bail); Coles and Crosswell, 78 Brit. & For. State Papers 1301 (1885) (unfair trial); Idler v. Venezuela, 4 Moore Arb. 3491 (1885) (tribunal manipulated by the executive in host nation).

FN78 *See e.g.,* Neer Case (U.S. v. Mex.), 4 R. Int'l Arb. Awards 60 (1926) (term extended to lack of adequate police protection of aliens). The quoted phrase is derived from the separate concurrence of Commissioner Fred K. Nielsen. *Id.* at 65; *see infra* text accompanying note 81. Commissioner Nielsen's definition is more frequently quoted than that of the majority in *Neer*, perhaps because his definition is more lenient. For the majority's definition, *see infra* text accompanying note 80.

In Roberts Case (U.S. v. Mex.), 4 R. Int'l Arb. Awards 77, 80 (1926), after being arrested with a number of others for an assault on a house, Roberts was confined without charge for at least seven months in a 35' X 20' jail cell occupied by 30 to 40 other prisoners. *Id.* at 77-80. The cell did not have sanitary accommodations, and the prisoners were ill fed and deprived of exercise. The Commissioner found that both Mexico's unreasonably long detention of Roberts prior to trial without charge and its subjection of Roberts to cruel and unusual punishment while in prison fell well below the minimum international standards. The court stated, "We do not hesitate to say that the treatment of Roberts was such as to warrant an indemnity on the ground of cruel and inhumane imprisonment." *Id.* at 80.

In the *Kennedy Case*, Kennedy, a U.S. Citizen and the assistant manager of a mining company located in Mexico, sued the Mexican government for failure to adequately punish a mine employee known to have assaulted Kennedy in a labor confrontation. *Kennedy Case* (U.S. v. Mex.), 4 R. Int'l Arb. Awards 194, 195-96 (1927). The General Claims Commission held that the two month prison sentence imposed upon Kennedy's aggressor was so out of keeping with the seriousness of the crime, which left Kennedy permanently crippled, that it constituted a denial of justice under the minimum international standards of treatment. *Id.* at 196-99. The same determination was made regarding the United States behavior in the *De Galvan Case* where the U.S. was held liable for the failure of Texan courts to prosecute the murderer of a Mexican subject. The murderer was indicted by a grand jury but not brought to trial for more than six years. *De Galvan Case* (Mex. v. U.S.), 4 R. Int'l Arb. Awards 273 (1927).

FN79 For instance, the British-Mexican Claims Commission stated that responsibility for the denials of justice or the undue delay of justice should not be limited simply to judicial authorities. *Interoceanic Ry. of Mexico Case*, (Gr. Brit. v. Mex.), 5 R. Int'l. Arb. Awards 178, 185 (1931). Rather, while recognizing that such international delinquencies will usually be an act or an omission of a tribunal, the Commission found that often it will be the work of nonjudicial officers responsible for bringing an alien before the court or enforcing a judgment. For instance, the Commission stated:

[I]f the authorities in whose power he [an alien arrested by the police on a false charge] happens to be prevent him from being led before a court, if they bar him access to a tribunal, this must certainly be characterized as a denial of justice or as an undue delay of justice, the responsibility for which does not rest with the courts or with any judicial authority, but with the non-judicial officials, who deprived the alien of his liberty. *Id.*

FN80 *Neer Case*, 4 R. Int'l Arb. Awards at 61-62. In the *Neer Case*, the widow and daughter of a murdered mine superintendent sued the Mexican authorities for "an unwarrantable lack of diligence or an unwarrantable lack of intelligent investigation in prosecuting the culprits." *Id.* at 61. The Commission held that Mexico was not liable for the \$ 100,000 claimed, although it stated that "better methods might have been used." *Id.* at 62.

FN81 *Id.* at 65.

FN82 *See*, e.g., *Mallen Case* (Mex. v. U.S.), 4 R. Int'l Arb. Awards 173 (1927); *Faulkner Case* (U.S. v. Mex.), 4 R. Int'l Arb. Awards 67 (1926).

FN83 *Faulkner Case*, 4 R. Int'l Arb. Awards 67.

FN84 *Mallen Case*, 4 R. Int'l Arb. Awards at 178.

FN85 *Colunje Case* (Pan. v. U.S.), 6 R. Int'l Arb. Awards 342 (1933) (United States liable for detective's illegal arrest of Panamanian citizen); *Baldwin and Others Case* (U.S. v. Pan.), 6 R. Int'l Arb. Awards 328 (1933) (Panama liable for allowing civilians to attack American soldiers); *Quintanilla Case* (Mex. v. U.S.), 4 R. Int'l Arb. Awards 101 (1926) (United States liable for death of Mexican citizen who after escaping from American custody was found dead). In the *De Sabla Case* (U.S. v. Pan.), 6 R. Int'l Arb. Awards 358 (1933), a U.S. citizen successfully brought suit for damages against Panama alleging that that government's land laws so unreasonably burdened private landowners as to fall below international minimum standards. Panamanian officials interpreted domestic laws as requiring them, upon application of a national, to relinquish the title of or the right to cultivate land already occupied by aliens, should the

owner not personally protest each application. *Id.* at 360. As a result, the plaintiff, De Sabla, had lost title and cultivation rights to much of her land since she was unable to personally oppose each individual application to acquire or farm her land. *Id.* at 359-60. Owing to the burdensome nature of this practice, which afforded no real protection of aliens' titles, as well as Panama's knowledge of De Sabla's land ownership, the Commission held that Panama's actions regarding De Sabla's property were "wrongful acts for which the government of Panama is responsible internationally." *Id.* at 366.

FN86 For instance, international law does not require a state to permit all aliens to enter its territory or to afford permanent residence to those that it does. Likewise, a state has no obligation to afford aliens the right to vote, hold political office or public employment. Nor does international law require a state to allow aliens to acquire or inherit certain property or allow access to public facilities or resources. Also, aliens may be subject to certain burdens to which nationals are exempt, such as registration or identification procedures. The common denominator of these "allowed discriminations" seem to be their political nature. An alien is entitled to the protection afforded by the sovereign, but not participation in determining who the sovereign is, whether that sovereign be the people of the nation, in which case aliens may be barred from the country, or their elected leader, in which case aliens may be denied suffrage. Even discrimination under laws and practices governing the acquisition of property may be related to political rights since real property ownership has been historically related to the ability to exercise political rights.

FN87 In *Banco Nacional de Cuba v. Sabbatino*, 376 U.S. 398, 429 (1964), the United States Supreme Court did refer to the nondiscriminatory standard of nationalization of property, but said it did not clearly apply to communist nations. A major reason for reversal was the notion of judicial deference. *Id.* at 431-33.

FN88 *Banco Nacional de Cuba v. Sabbatino*, 307 F.2d 845, 865-66 (2d Cir. 1962), rev'd on other grounds, 376 U.S. 398 (1964).

FN89 *Id.* at 867.

FN90 *Id.* at 866. Under similar circumstances, the Netherlands protested Indonesia's nationalization of Dutch-owned enterprises. Because the official Indonesian acts were aimed at Dutch-owned companies exclusively, and did not attempt the expropriation of enterprises owned by nationals or citizens of other foreign governments, the Netherlands asserted their nullity under international law. *See Netherlands-Indonesia*, 54 Am. J. Int'l L. 484 (1960).

FN91 *See, e.g., Smith v. Compania Urbanizadora Del Parque y Playa De Marianao* (U.S. v. Cuba), 24 Am. J. Int'l L. 384, 386-387 (1929) (Cuba held liable for damages for failure to accord American citizen the same protection of private property as is given Cuban nationals); *Cadenhead Case* (Gr. Brit. v. U.S.), 8 Am. J. Int'l L. 663 (1914) (claim for damages for accidental death of British subject by American soldier denied because no showing subject had been discriminated against in treatment under American law).

FN92 Indeed, in many countries the nondiscrimination principle will contain higher standards of treatment than the classic minimum international standard; aliens in those countries will then typically invoke the nondiscrimination standard, which may have the effect of ratcheting up the content of the international minimum standard. Cf. *Smith v. Compania Urbanizadora*

del Parque y Playa de Marianao (U.S. v. Cuba), 24 Am. J. Int'l L. 384 (1929) (American citizen sought equal treatment with nationals under Cuba's constitution).

FN93 The international law of human rights, however, is evolving to close the gap between alien and citizen in this respect. At least as to certain rights—such as habeas corpus and freedom from torture—the difference has narrowed to the point of disappearance.

FN94 E. Vattel, *The Law of Nations* 251-252 (L. White ed. 1792).

FN95 *See* A. D'Amato, *International Law: Process and Prospect* 89-90, 194-99 (1987); *see also* Sohn, *The New International Law: Protection of the Rights of Individuals Rather Than States*, 32 *Amer. U.L. Rev.* 1 (1982) (discussing the growing importance of human rights in international law).

FN96 *See supra* note 74.

FN97 *See* Restatement, *supra* note 73, § 711.

FN98 Borchard, *The Law of Responsibility of States for Damages Done in Their Territory to the Person or Property of Foreigners*, 23 *Am. J. Int'l L.* 140, 149 (Supp. 1929).

FN99 Moreover, even on its own terms, the distinction is not persuasive. Discriminatory treatment reveals itself as a problem for religious, racial, and ethnic minorities within nations just as much as a problem for aliens; mere possession of a vote has not always guaranteed nondiscriminatory treatment to "discrete and insular minorities" (to use the phrase from the United States Supreme Court, *U.S. v. Carolene Products Co.*, 304 U.S. 144 (1938)).

FN100 *See In re Yamashita*, 327 U.S. 1 (1946) (War crimes committed outside General Yamashita's nation were attributable to him because he was the commander of the forces that committed the crimes.); D'Amato, *Superior Orders vs. Command Responsibility*, 80 *Am. J. Int'l L.* 604 (1986).

FN101 *See, e.g.,* A. D'Amato, *supra* note 95, at 94-96 (1987).

FN102 To be sure, some people would make such a claim and thus deny reality to international law. *See, e.g.,* Trimble, *A Revisionist View of Customary International Law*, 33 *UCLA L. Rev.* 665 (1986). Those who would believe that claim would not only reject everything in the present paper; they would reject any claim under the doctrine of state responsibility.

FN103 *See* Handl, *supra* note 3; Quentin-Baxter's Third Report, *supra* note 3.

FN104 Handl, *supra* note 3, at 3-4.

FN105 *Id.* at 4.

FN106 *Id.* at 6-12. Among the different abnormally dangerous activities conducted by a state near an international boundary, Handl discusses nuclear power generation. Objections raised to the chosen location of nuclear power plants by neighboring states are repeatedly the subject of diplomatic concern, and, in one instance, were the source of a state's decision not to site a power plant in a frontier area. In that case, a Swiss plan to site a plant near Ruthi in the Upper Rhine Valley close to the Austrian border was strongly criticized by citizens in the neighboring Austrian state of Vorarlberg. After diplomatic talks, Austria announced that it was prepared to assert a formal legal claim against the Swiss government if it determined the siting violated international law. Not long after this message, the Swiss government declared that it had

shelved the construction plan temporarily, a statement Handl interprets to indicate a probable determination by the Swiss government that the plant did in fact violate international law, though this was not explicitly conceded by the Swiss government. *Id.* at 28-30.

FN107 *Id.* at 47. Handl writes:

Assuming that no special authorizing circumstances prevail, conduct of an activity in frontier areas is incompatible with established principles of international law if: (a) the activity concerned involves a major risk of transnational harm; (b) this risk is a function, at least to a significant degree, of the location in which the activity takes place; and (c) the activity in that frontier location amounts to an inefficient use between the risk-creating and risk-exposed states of the internationally shared natural resources concerned. . . . *Id.* at 47 (footnotes omitted).

FN108 Moreover, the insistence throughout his writings that the general tort concept of nuisance regulates state liability for extraterritorial activities seems unduly restrictive.

FN109 The reports are as follows: Quentin-Baxter's Fifth Report, *supra* note 3; International Liability for Consequences Arising Out of Acts Not Prohibited by International Law: Fourth Report by Mr. Robert Q. Quentin-Baxter, Special Rapporteur, U.N. Doc. A/CN.4/373 (1983) *reprinted in* [1983] 2 Y.B. Int'l L. Comm'n 201, U.N. Doc. A/CN.4/SER.A/1983/Add. 1 (Part 1); Quentin-Baxter's Third Report, *supra* note 3; International Liability for Consequences Arising Out of Acts Not Prohibited by International Law: Second Report of Mr. Robert Q. Quentin-Baxter, Special Rapporteur, U.N. Doc. A/CN.4/346/ and Add. 1 & 2 (1981), *reprinted in* [1981] 2 Y.B. Int'l L. Comm'n 103, U.N. Doc. A/CN.4/SER.A/1981/Add. 1 (Part 1); International Liability for Consequences Arising Out of Acts Not Prohibited by International Law: Preliminary Report by Mr. Robert Q. Quentin-Baxter, Special Rapporteur, U.N. Doc. A/CN.4/334 and 247, U.N. Doc. A/CN.4/SER.A/1980 [hereinafter Quentin-Baxter's Preliminary Report]. For an overview of the Commission's work, *see* Magraw, Transbounding Harm: The International Law Commission's Study of "International Liability," 80 Am. J. Int'l L. 305, 306-16 (1986).

FN110 Quentin-Baxter's Third Report, *supra* note 3, at 62

FN111 *Id.* at 62-64.

FN112 *See* Handl, *supra* note 3, at 4.

FN113 *See* Quentin-Baxter's Third Report, *supra* note 3, at 62-64. The schematic outline finds the proper balance to allow as "much freedom of choice . . . as is compatible with adequate protection for the interests of affected states." *Id.* at 63. "Adequate protection" is in turn defined as "measures of prevention that as far as possible avoid the risk of injury . . . but [that] should be determined with due regard to the importance of the activity and its economic viability." *Id.*

FN114 *See id.* at 60; Summary Records of the 1631st Meeting [1980] 1 Y.B. Int'l L. Comm'n 246, U.N. Doc. A/CN.4/SER.A/1980 (observations of Mr. Sucharitkul); Magraw, *supra* note 109, at 322-26; Magraw, *supra* note 3, at 1046.

FN115 *See* Quentin-Baxter's Third Report, *supra* note 3; Quentin-Baxter's Preliminary Report, *supra* note 109; Observations at the Thirty-second Session of the Commission by Mr. Sucharitkul, [1980] 1 Y.B. Int'l L. Comm'n 246 1980; Magraw, *supra* note 109, at 323-26; Magraw, *supra* note 3, at 1046. By "physical linkage" it seems Quentin-Baxter originally intended "via a natural medium" such as the air, water or earth and not through an economic, political, or cultural medium. *Id.* at 1046.

FN116 *See* Magraw, *supra* note 109, at 325.

FN117 *Id.* at 326 ("A finding of liability might lead the United States and other states that export capital and technology to change their attitudes toward the regulation of foreign investment and technology transfer. The upshot could be tighter control over, and a corresponding decline in, those activities, which, ironically, could hamper the efforts of developing states to modernize and decrease their dependency on imports.")

FN118 *See*, e.g., A. D'Amato, *supra* note 95, at 94-96 (nations have equal entitlements).

FN119 H.L.A. Hart, *The Concept of Law* 153 (1961).

FN120 *Cf.* D'Amato, Lon Fuller and Substantive Natural Law, 26 *Am. J. Juris.* 202, 204 (1981) (discussing "substantive natural law" which holds that there are certain absolutes in law).

FN121 *See*, e.g., Bassiouni, Regulation of Armed Conflicts *in* 1 *International Criminal Law* FN 199 (M.C. Bassiouni ed. 1986) (describing the development of the concept of war crimes in international law).

FN122 *See*, e.g., A. D'Amato, *supra* note 95, at 123-31 (discussing human rights norms that are part of customary international law).

FN123 *See* W. F. Hardie, *Aristotle's Ethical Theory* (1980).

FN124 It is interesting in this regard to note that Rousseau's greatest scholarly antagonist in *The Social Contract* was Grotius, whom Rousseau must have correctly regarded as being opposed to a social-contract notion of the state due to the inhospitability of that notion to universal justice. *See* Friedmann, Hugo Grotius *in* 3 *Encyclopedia of Philosophy* 394.

FN125 It is Vattel, especially, who can mistakenly be charged with having a theory of sovereignty that appears to be insensitive to transnational justice. *See*, e.g., Kahn, From Nuremberg to the Hague: The United States Position in Nicaragua v. United States and the Development of International Law, 12 *Yale J. Int'l L.* 1, 35-36 (1987) (assuming that Vattel's vigorous notion of domestic jurisdiction means that he lacks a concept of denial of justice having transnational implications).

FN126 A. H. Grotius, *De Jure Belli ac Pacis Libri Tres*, ch. XX, sec. xl (F. Kelsey trans. 1925) (1646).

FN127 S. Pufendorf, *Elementorum Jurisprudentiae Universalis Libri Duo*, obs. V, secs. 21-22, 292-93 (Carnegie trans. 1931) (1672).

FN128 S. Pufendorf, *De Jure Naturae et Gentium Libri Octo*, ch. VI, sec. 14, 1307 (Carnegie trans. 1934) (1688).

FN129 Suarez, *De Triplici Virtute Theologica, Fide, Spe, et Charitate* "De Charitate, Disputation XIII: De Bello," *in* *Selections from Three Works*, 817 (Carnegie trans. 1944) (1621). Nevertheless, Catholic writers at that time were less likely to agree to military intervention in general, because, as L. C. Green has observed, they were more concerned with the propagation of the faith and tended to look for papal authorization for military intervention abroad. *See* Green, Institutional Protection of Human Rights, 16 *Israel Y.B. Hum. Rts.* 69, 71 (1986). Despite the unreality of attempting to divorce religious-ideological motivations from moral ones, it is

nevertheless possible to theorize that papal authorization, in the eyes of these writers, was a surrogate for an objective determination that the cause of international justice would be served by intervention.

FN130 E. Vattel, *The Law of Nations, or Principles of the Law of Nature, Applied to the Conduct and Affairs of Nations and Sovereigns*, Intro., § 11, at lx-lxi (Chitty trans. 1876).

FN131 *Id.* at Book II, ch. I, §§ 1-3, at 133-35.

FN132 *Id.* at Book II, ch. IV, § 56, at 155.

FN133 *See* A. D'Amato, *supra* note 95, at 215-22.

FN134 J. Rawls, *A Theory of Justice* (1971).

FN135 *Id.* at 378.

FN136 *See* A. D'Amato, *Jurisprudence: A Descriptive and Normative Analysis of Law* 267-68 (1984) (discussing Rawls' concept of justice as it might be applied internationally).

FN137 J. Rawls, *supra* note 134, at 132.

FN138 C. Beitz, *Political Theory and International Relations* (1979).

FN139 *Id.* at 131. "Like Hume, Rawls regards society as a 'cooperative venture for mutual advantage.'" *Id.* at 130 (noting the comparison with D. Hume, *A Treatise of Human Nature* III, II, ii (1739-40)).

FN140 *Id.* at 131.

FN141 J. Rawls, *supra* note 134, at 302.

FN142 For an excellent historical analysis, *see* Posner, *The Concept of Corrective Justice in Recent Theories of Tort Law*, 10 *J. Leg. Stud.* 187 (1981).

FN143 Judge Posner's statement is beautifully concise:

Law is a means of bringing about an efficient (in the sense of wealth-maximizing) allocation of resources by correcting externalities and other distortions in the market's allocation of resources. The idea of rectification in the Aristotelian sense is implicit in this theory. If a fails to take precautions that would cost less than their expected benefits in accident avoidance, thus causing an accident in which B is injured, and nothing is done to rectify this wrong, the concept of justice as efficiency will be violated. *Id.* at 201

FN144 *See id.*

FN145 *See* Peterson, *A Chernobyl Possible in U.S., Experts Agree*, *Wash. Post*, June 1, 1986, at A17, col. 1. We are of course not arguing specifically here that a graphite system is inherently too dangerous for export, nor that it may be made acceptable by adding safety features such as concrete shielding.

FN146 That the accident is a Type I accident is not, however, completely irrelevant when analyzing liability under the international minimum standard. Nation *E*'s internal safety standards might be cited, along with the internal safety standards of all the other nations in the international community, in an attempt to give content to the international minimum standard. Under such an approach, one would consider the international minimum standard to be a "general principle of international law" ascertainable, in large part, by a compilation of the internal practice of all the states. This methodology of proving international norms would dictate that na-

tion *E*'s internal standards are at least as relevant as the standards of all the other nations. *See* Onuf, Global Law-Making and Legal Thought, *in* Lawmaking in the Global Community 1, 24-27 (N. Onuf, ed. 1982); *see also* G. Tunkin, Theory of International Law, 190-224 (W. E. Butler trans. 1974) (Soviet view).

FN147 On the other hand, in the event that pollution from the meltdown were to cross international boundaries and result in harm to a third nation *T*, either *E* or *R* or both, might be liable to *T* on the theory of an "international minimum standard." *See* Handl, *supra* note 3, at 39-47.

FN148 The nondiscrimination standard is not theoretically applicable to Types II and III. Type II addresses safety factors relevant only to exported plants. Hence, there is no basis for comparison between citizens and foreigners and thus no standard for discrimination. Type III (negligent manufacture) presumably has the same negligence standard regardless of whether the plant is exported or installed domestically. However, difficult questions of choice-of-law can arise with respect to the negligence standard. The nondiscrimination standard would possibly be a factor in deciding the choice-of-law question (i.e., if the choice of a particular legal system itself works a discrimination against persons injured in *R*).

FN149 *See generally* Canterbury v. Spence, 464 F.2d 772, 780, 786-89 (1972) (articulating the standard for informed consent); Waltz & Scheuneman, Informed Consent to Therapy, 64 Nw. U.L. Rev. 628 (1970) (analyzing cases and commentary on the doctrine of informed consent); Comment, Informed Consent in Medical Malpractice, 55 Calif. L. Rev. 1396, 1407-10 (1967) (proposing a new standard for informed consent).

FN150 The decision to import nuclear power technology is frequently that of a central committee or ruling elite within a developing country. *See* Katz & Marwah, *supra* note 1, at 145-47 (decision to import nuclear power technology in Egypt made by President Sadat in consultation with the Higher Council for Nuclear Energy without the benefit of any public debate); *id.* at 208 (Iranian nuclear power program initiated by the Shah and closed circle of domestic and foreign business associates and political advisors).

FN151 The real purpose of the importation, indeed, may not have even been to benefit the people, but rather to provide an opportunity for graft, corruption, and kickbacks to the leaders of *R* to induce them to agree to the importation. *See id.* at 204 (kickbacks to royal family in Iran estimated at 20 per cent of total nuclear power reactor purchase or several hundred million dollars per reactor); *id.* at 230 (allegations of Korean-influenced buying slowed export of Westinghouse reactor to South Korea); *id.* at 281 (news reports that Westinghouse made payoffs to a close friend of the Marcos family to obtain the Philippines contract).

FN152 *See, e.g.,* Faulkner Case (U.S. v. Mexico), 4 R. Int'l Arb. Awards 67 (1926); Neer Case (U.S. v. Mex.), 4 R. Int'l Arb. Awards 60 (1926).

FN153 Cf. Trail Smelter Case (U.S. v. Can.), Interim Decision (1938) & Final Decision (1941), 3 R. Int'l Arb. Awards 1905, 1938; Handl, *supra* note 3 (presenting ways in which risk-creating and risk-exposed states may adjust conflicting claims in order to use shared resources efficiently); Rubin, Pollution by Analogy: The Trail Smelter Arbitration, 50 Or. L. Rev. 259 (1971) (recognizing that nations creating extraterritorial hazards must be made aware of those hazards before they will be willing to take greater precautions).

FN154 Atomic Energy Damages Act, Pub. L. No. 85-256, 71 Stat. 576 (1957) (codified as amended at 42 U.S.C. § 2210 (1982)).

FN155 *See* Buffington, *The Price-Anderson Act: Underwriting the Ultimate Tort*, 87 *Dick. L. Rev.* 679, 680 (1983).

FN156 A nuclear power plant manufacturer might attempt to reduce its potential liability by forming a subsidiary corporation for the sole purpose of designing, manufacturing, and exporting a single nuclear power plant. The company's assets, then, would be limited to the profits on that one sale. Obviously, soon after the sale, the company would go into liquidation and distribute its assets to its shareholders. But even if those assets could be traced, the total assets (consisting only of the profits on one sale) would be woefully insufficient in the event of any catastrophic accident. And even so, the parent company has not totally insulated itself against the possibility that a foreign court might pierce the corporate subsidiary "umbrella" and reach the parent company because a tort is involved.

FN157 Atomic Energy Act of 1954, Publ. L. No. 83-703, §§ 53, 62, 64, 103-104, 68 Stat. 919, 930, 932-933, 936-937 (codified as amended at 42 U.S.C. §§ 2073, 2092, 2094, 2133-2134 (1982)).

FN158 Letter from Jane R. Mapes, Senior Attorney, Office of the General Counsel, U.S. Nuclear Regulatory Commission, to the Author (July 17, 1987) [hereinafter *Mapes Letter*] (regarding liability for waivers for nuclear exports) (copy on file at the Virginia Law Review).

FN159 *Id.*; *see* Treaty on the Non-Proliferation of Nuclear Weapons, entered into force March 5, 1970, 21 U.S.T. 483, T.I.A.S. No. 6839, 729 U.N.T.S. 161. The treaty states that "[p]arties to the Treaty . . . shall also cooperate in . . . [furthering] development of the applications of nuclear energy for peaceful purposes, . . . with due consideration for the needs of the developing areas of the world." *Id.* at 490-91, T.I.A.S. No. 6839, 729 U.N.T.S. 173.

According to Ms. Mapes, the warranty disclaimer is also considered unnecessary because matters relating to waivers of liability for nuclear exports can be covered in contracts between the receiving country and U.S. suppliers such as General Electric, Westinghouse, and the Department of Energy. *Mapes Letter*, *supra* note 158.

FN160 Restatement (Second) of Contracts § 195 comment b (1977); cf. *Williams v. Walker Thomas Furniture Co.*, 350 F.2d 445 (D.C. Cir. 1965) (holding that a court may refuse to enforce a contract if it finds it unconscionable).

FN161 *See* Vienna Convention on the Law of Treaties, opened for signature May 23, 1969, Art. 53, 8 I.L.M. 679, 698:

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 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.

FN162 For a somewhat conservative approach to the concept of "general principles of law," *see* D'Amato, *What 'Counts' as Law? in Lawmaking in the Global Community* 83, 102-03 (N. Onuf ed. 1982).

FN163 This is not to say that foreigners within the importing nation's territory may not be harmed, or that pollution may not carry through the atmosphere and through the water to people in other countries.

FN164 *See* Scherr, *supra* note 26, at 276.

FN165 Even among "realpolitik" advisers in the Reagan Administration, the view today is toward a modified Wilsonianism that considers more seriously the internal relation of foreign peoples to their governments. *See* A. D'Amato, *supra* note 95, at 227-30.

FN166 *See id.* at 194-99 (discussing the strategy of the Calvo clause and the Calvo doctrine).

FN167 *See* R. Posner, *Economic Analysis of Law* 187-90 (3d ed. 1986). This conclusion follows from the fact that a reasonable person would prefer to avoid a serious physical injury than to receive monetary damages as compensation. Hence, the purpose of tort law is to deter the injury itself. Of course, a system of forced payment in monetary damages by the injurer constitutes the main component of the deterrence factor.

FN168 *See supra* text accompanying note 149.

FN169 Indeed, damages in tort are inherently insufficient to deter accidents, because they are premised upon a reasonable standard of care and reasonable safety measures, whereas accidents occur in the normal statistical course of deviation from these means. *See* R. Posner, *supra* note 167, at 187 (describing how a negligence-based tort system deters inefficient accidents).

FN170 Scherr, *supra* note 26, at 280-81; *see supra* text accompanying notes 32-38.

FN171 For the importance of such systems to the safety of a nuclear power plant, *see* Pollard Letter *supra* note 29, at 6.

FN172 *See* Rosen, *supra* note 12, at 16.

FN173 *Id.*