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Accidents *Do* Happen: Hazardous Technology and International Tort Litigation*

Stephen C. McCaffrey**

INTRODUCTION

More than three years ago, what has been described as the most tragic industrial disaster in history¹ claimed the lives of well over 2,000 people and seriously injured upwards of 20,000 more in Bhopal, India.² It is a sad commentary on the effectiveness of the law on

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1. See *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India*, 634 F. Supp. 842, 844 (S.D.N.Y. 1986), *aff'd in part sub nom. Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp.*, 809 F.2d 195 (2d Cir. 1987).

2. Estimates of the number of dead range from 2,100 to 2,700. See *Id.* at 844 (2,100); 10 Int'l Env't Rep. (BNA) 148 (April 8, 1987) (reporting that the Indian government estimated that 2,374 people had died as a result of the accident); and Stille, "A Sense of Dharma," NAT'L L.J., Feb. 29, 1988, at 1, col. 1 (2,700).

The number of people seriously injured by the gas leak at Bhopal is so vast that estimates range from 10,000 to 40,000. See, e.g., 11 Int'l Env't Rep. (BNA) 3 (Jan. 13, 1988) (20,000); Miller, *Two Years After Bhopal's Gas Disaster, Lingering Effects Still Plague its People*, Wall St. J., Dec. 5, 1986, at 30, col. 2 (30-40,000); and Stille, *supra*, at 44 (reporting that Union

both the national and international levels that it took two years and the expenditure of over \$25 million in legal costs alone³ simply to identify the proper forum for suits arising out of the disaster. The quest for a forum was probably not facilitated by the prevailing confusion as to who could properly represent the hundreds of thousands of victims.⁴ Most importantly, the victims' claims have yet to be resolved.⁵

After reviewing briefly the principal obstacles to obtaining relief for victims of such disasters through the courts, this article will suggest ways in which the provision of relief to victims might be expedited both within and outside of the litigation process. The article concludes that action must be taken, preferably on the state-to-state level, to ensure that a regime for expediting the provision of relief is in place before a disaster involving hazardous substances or technology strikes again. Throughout the article, the natural or legal person exporting hazardous substance or technology will be referred to as the "exporter" and, for convenience, the country into which the substance or technology is imported will be referred to as the "importing" or "host country," regardless of whether the actual importer is a government or a person.

I. OBSTACLES TO OBTAINING RELIEF

Experience has shown only too clearly that if victims of mass disasters are left with no alternative but to seek redress through the

Carbide's attorney puts the number of seriously injured at 10,000). The number is multiplied many times if all injured persons are included, regardless of the severity of the injury. For example, the U.S. Federal District Court that tried the consolidated actions against Union Carbide found that "[o]ver 200,000 people suffered injuries—some serious and permanent—some mild and temporary." *In re Union Carbide*, 634 F. Supp. at 844. Moreover, "[l]ivestock were killed and crops damaged. Businesses were interrupted." *Id.* The facts of the Bhopal incident are summarized in the District Court's opinion, *id.*, at 845.

3. Draft Memorandum by Timothy B. Atkeson, of the Washington, D.C. bar, appended as Attachment 4 to paper delivered by Timothy W. Stanley, Chairman, International Economic Policy Association, *The Impact of Transnational Liability on Investment Flows and Trade Competitiveness*, at panel on Hazardous Products and Technologies in Transnational Business, Annual Meeting of the American Bar Association's Section of International Law & Practice (Aug. 12, 1986).

4. On March 29, 1985, the government of India enacted legislation providing that India had the exclusive right to represent Indian plaintiffs in India and elsewhere. See India: Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985, reprinted in 25 INT'L LEGAL MATERIALS 884 (1986). Pursuant to that legislation, India filed a complaint in the same U.S. court to which the 145 actions that had been brought by American lawyers had been assigned, thus creating considerable confusion as to who could properly represent the plaintiffs.

5. Approximately 200,000 plaintiffs were involved in the U.S. litigation, and nearly 500,000 claims had been filed in India as of December 1986. *In re Union Carbide*, 634 F. Supp. at 845.

courts, the process of obtaining relief will be slow and expensive, with a good portion of any recovery being eaten up by court costs and attorneys' fees.⁶ And yet legal redress through the courts has in fact been the only recourse available as a practical matter in the most notorious cases involving toxic substances or hazardous technology.⁷ Other dispute-settlement methods have been proposed,⁸ but

6. As to the delay and legal costs in the case of the Bhopal disaster, see *supra* text accompanying notes 1-5. As to the suit filed in Bhopal district court, "no one suggests that the entire process could be completed in less than four years if the case is tried and goes through all levels of appeal. And most knowledgeable observers suggest that eight to ten years is a more likely span—if all goes well." Adler, *Bhopal Justice Watch: Can Michael Ciresi Make the Best of a Bad Forum?*, 71 AM. LAW. 34, 34.

With respect to the 1976 chemical plant explosion at Seveso, Italy, see *Salzburger Zeitung*, July 11, 1986, at 48, col. 4, indicating that 10 years after the accident, the victims had not received any compensation from the responsible company.

The story is the same in other cases involving large numbers of victims. In the recent U.S. cases involving injuries from asbestos, for example, "[o]nly 37 percent of the compensation demanded . . . from 1980 to 1982 actually got to the victims: legal fees and expenses drained off the other 63 percent—and many years elapsed before victims received any compensation at all." Stein, *Paying Bhopal Victims*, N.Y. Times, Dec. 18, 1984, at 35, col. 3. Victims of the *Amoco Cadiz* oil spill had to wait nearly ten years for a judgment ordering Amoco Corp. to pay \$85.2 million in damages—an award they considered unsatisfactory. See *In re Oil Spill by the Amoco Cadiz off the Coast of France on March 16, 1978*, MDL No. 376, slip op. (N.D. Ill. Jan. 11, 1988); Conlon, *Amoco Ordered to Pay \$85 Million for '78 Oil Spill*, Sacramento Bee, Jan. 12, 1988, at 1, col. 1. Plaintiffs in the case, as of 1984, had reportedly paid nearly \$10 million in legal fees. Smets, *Compensation of Environmental Damage Caused by Non-Nuclear Industrial Activities*, note 30, (mimeo, OECD, (1984)) (on file at *The Transnational Lawyer*) [hereinafter Smets, *Compensation of Environmental Damage*]. See also a more general study by the same author, H. Smets, *Indemnisation des dommages exceptionnels à l'environnement causés par les activités industrielles*, in HAGUE ACADEMY OF INTERNATIONAL LAW & UNITED NATIONS UNIVERSITY, *THE FUTURE OF THE INTERNATIONAL LAW OF THE ENVIRONMENT 275*, Workshop, The Hague, Nov. 12-14, 1984 (R.-J. Dupuy ed. 1985) [hereinafter Smets, *Indemnisation des dommages*].

7. With regard to the Seveso accident, see *supra* note 6. In the Bhopal case, the Indian government did undertake to provide some financial relief, but this effort has been severely handicapped by, *inter alia*, problems with the identification of victims. Kramer, *For Bhopal Survivors, Recovery is Agonizing, Illnesses are Insidious*, Wall St. J., Apr. 1, 1985, at 1, col. 1. Settlement negotiations between the government of India and Union Carbide were not fruitful. See e.g., 10 Int'l Env't Rep. (BNA) 148 (8 Apr. 1987). *But cf.* the situation in the case of the Rhine chemical spill of November, 1986, where Sandoz officials stated that the company would pay "proven claims" resulting from the spill at its Basel plant. Recently, France settled with Sandoz in the amount of \$7.6 million. 10 Int'l Env't Rep. (BNA) 492 (Oct. 14, 1987). The Swiss government has established an internal claims procedure and, according to some press accounts, has accepted responsibility for the spill. S.F. Chron., Nov. 13, 1986, at 21; Financial Times (London), Nov. 14, 1986, at 1, col. 3; and Sacramento Bee, Nov. 14, 1986, at A23. See also editorial, *Taking the Rap on the Rhine*, N.Y. Times, Nov. 18, 1986, at 26, col. 1. The German insurance carrier of the Sandoz company stated that actual damages were believed to be less than \$60 million, and that Sandoz' maximum coverage would be five times that amount. Sacramento Bee, Nov. 14, 1986, at A23; Cf. federal legislation proposed to provide relief outside the courts for asbestos related death and disability, cited *infra* note 11.

8. Bilder, *A Lump-Sum Settlement for Bhopal*, Washington Post, Jan. 3, 1985 at A19; Stein, *supra* note 6, at 35, col. 3; Magraw, *The Bhopal Disaster: Structuring a Solution*, 57

like the litigation approach, they are *post hoc* in nature and must inevitably begin dealing with the case at a stage when it is already in a confrontational posture.

In short, it is arguable that any means of obtaining compensation for victims that is not initiated until after the accident⁹ will not be expeditious¹⁰ precisely because the parties are thrown into a posture of *dispute*-settlement. The victims will want swift relief but will not wish to sacrifice adequacy of compensation—as they see it—to get it; the “defendant” company will doubtless wish to preserve good relations with the host country, if any (as well as other potential host countries), but its generosity will be tempered by its responsibility to its stockholders. Although judicial relief has the presumptive virtue of according the parties the full panoply of due process protections, and while the victims might eventually obtain a higher award from a court than through a pre-arranged compensation mechanism, it is questionable whether these are net advantages, given the delays and siphoning-off of recovery that are inherent in the litigation process.¹¹

U. COLO. L. REV. 835 (1985-86); and Nanda, *For Whom the Bell Tolls in the Aftermath of the Bhopal Tragedy: Reflections on Forum Non Conveniens and Alternative Methods of Resolving the Bhopal Dispute*, 15 DEN. J. INT'L L. & POL'Y 235 (1987). Like Bilder, Stein suggests a nonlitigation strategy aimed at “maximiz[ing] the return to the victims in the shortest amount of time while minimizing the costs to third parties.” Stein, *supra* note 6, at 35. Similarly, Nanda urges that alternative dispute resolution techniques such as mediation and conciliation be tried to resolve the Bhopal conflict without further delay. Nanda, *supra*, at 253.

Magraw “proposes a structure for resolving the Bhopal litigation” which, however, is intended to provide a model “if similar disasters occur in the future, as seems certain.” Magraw, *supra*, at 837-38 (footnote omitted). The proposal envisions, *inter alia*, an agreement between the United States and India, whereunder India would “expropriate all claims arising from the Bhopal disaster” (*id.* at 844); the establishment in India, by India and the U.S., of a special claims settlement tribunal which would determine expeditiously the amount of each claim (*id.* at 846); the payment to India by Carbide (U.S.) and Carbide (India) of “a lump sum in full and final settlement of all claims against the Union Carbide group of companies related to the Bhopal disaster, with the exception of [specified individual claims]” (*id.* at 847); and the distribution of the lump sum, “without deduction for any tribunal expenses, by India to the claimants . . . in accordance with the determinations of the tribunal” (*id.* at 846).

9. The old adage, “an ounce of prevention is worth a pound of cure” applies not only to relief efforts but also - and more importantly - to the entire issue of chemical plant safety. Note, *Chemical Plant Safety Regulation: The European Example*, 16 L. & POL'Y INT'L BUS. 621 (1984). In contrast to the prevention-oriented approach of the European Community's “Seveso Directive” [5 O.J. EUR. COMM. (No. L 230) 1 (1982)], “U.S. federal legislation in this area is largely response-oriented . . .” *Id.*

10. This is by no means meant to deny that the methods proposed by Messrs Bilder, *supra* note 8 and Stein, *supra* note 6, would in all likelihood be more expeditious than the judicial avenue.

11. This is the position taken by Bilder, *supra* note 6, and Stein, *id.* See also Lewin, *Faster Settling of Mass Claims*, N.Y. Times, Aug. 7, 1984, at D2, col. 1; S. 2708, 98th Cong., 2d Sess. (1984) (A bill to provide prompt, exclusive, and equitable compensation, as a substitute for inadequate tort remedies, for disabilities or deaths resulting from occupational exposure to asbestos, and for other purposes); and H.R. 5966, 98th Cong., 2d Sess. (1984) (companion bill to S. 2708).

Nonetheless, while adjudication may not be the speediest or even the most effective avenue of relief, it is not at all certain that claimants could be precluded from taking recourse to litigation in a case involving more than one country.¹² Thus, the possibility that victims will seek redress through the courts—either to gain supplemental recoveries or because of the non-existence, inapplicability, or inefficacy of any pre-arranged compensation system—cannot be ignored. Consequently, any solution to the problem of ensuring the efficient provision of rapid and adequate compensation must address obstacles inherent in the judicial process in addition to suggesting new forms of anticipatory compensation schemes. This part of the article will therefore review in summary fashion the principal features of transnational mass disaster litigation¹³ that are likely to delay the provision of compensation to victims, with a view to identifying areas of needed reform. Part I will conclude with a discussion of several additional aspects of the litigation process that should be addressed in order to compensate victims more equitably and expeditiously.

Factors tending to impede the provision of relief to victims through the courts may be grouped according to whether they operate before, during, or after a trial. An obvious pre-trial consideration is whether affordable legal representation is available. Victims of a mass disaster caused by hazardous technology are all too likely to be unable to afford legal representation.¹⁴ If that is the case, they will be forced to rely upon publicly funded legal aid¹⁵ or representation on a

12. See *infra* notes 50-51 and accompanying text. Mention should also be made of the *Amoco Cadiz* litigation, which was brought in U.S. federal court, outside the compensation scheme provided by the 1969 International Convention on Civil Liability for Oil Pollution Damage, *infra* note 70, reportedly because of the inadequate compensation provided for under the 1969 Convention. Smets, *Compensation of Environmental Damage*, *supra* note 6, at 12. The judgment in the liability phase of the proceedings is reported in 3 Am. Mar. Cases 2123 (1984). For the judgment in the damages phase, see *supra* note 6.

13. Many of the factors discussed are not unique to a case involving the transfer of hazardous technology, and some would be present in a wholly domestic lawsuit.

14. In his opinion in the U.S. Bhopal litigation, Judge Keenan observed that "the lack of contingency fees is not an insurmountable barrier to filing claims in India, as demonstrated by the fact that more than 4,000 suits have been filed by victims of the Bhopal gas leak in India, already." *In re Union Carbide*, 634 F. Supp. at 851, reprinted in 25 INT'L LEGAL MATERIALS at 781.

15. In the case of the Bhopal disaster, Indian legal aid committees filed a large number of cases against both Carbide India and the Indian government. Dhavan, *For Whom? And For What? Reflections on the Legal Aftermath of Bhopal*, 20 TEX. INT'L L.J. 295, 299 (1985). Concerning legal aid in India generally, see Galanter, *Legal Torpor: Why So Little Has Happened in India After the Bhopal Tragedy*, 20 TEX. INT'L L. J. 273 (1985). Dhavan reports that "[t]he Madyha Pradesh Congress (I) Legal Aid Committee filed 120 cases against Union

contingent fee basis,¹⁶ if either is available. If neither is available, which is not unlikely,¹⁷ plaintiffs may be left with no effective judicial recourse.¹⁸

Nor can other litigation "costs" be forgotten. Some countries, such as India,¹⁹ impose an *ad valorem* court fee upon plaintiffs. If not waived, such a fee would raise the cost of recourse through the courts, and might even make it impossible for an impecunious victim

Carbide," and that "the new Supreme Court public interest law procedure was used to file cases before the Supreme Court against the Indian government," seeking damages as well as interim relief. These actions have apparently been preempted by the Claims Act which was passed by the Indian government on 18 Mar. 1985 and came into force on 29 Mar. 1985. See Bhopal Gas Leak Disaster (Processing of Claims) Act, *supra* note 4, at 884; Galanter, *supra* at 290, text at note 84. The Claims Act itself, while reserving to the Central Government "the exclusive right" to represent all claimants in any action anywhere in the world (§ 3), does allow any claimant to retain, at his or her own expense, "a legal practitioner . . . to be associated in the conduct [by the government] of any suit or other proceeding relating to his claim." *Id.* at 885.

Despite the fact that legal aid for Bhopal victims is at least theoretically available in India, one Indian observer who has worked extensively in Bhopal since the accident has been quoted as saying that it is "far-fetched" to expect that the poor will receive justice in India. 9 Int'l Env't Rep. (BNA) 343 (Oct. 8, 1986).

16. Most authorities agree that the contingent fee is an institution which, if not uniquely American, at least thrives there far better than anywhere else. Such arrangements are condemned not only by most civil law countries, but also in England. See R. SCHLESINGER, *COMPARATIVE LAW* 343-88 (4th ed. 1980); W. KALSBACK, *Les barreaux dans le monde* 156 (1959). This does not necessarily mean, however, that a contingent fee arrangement, valid under the law of state X, will not be enforced in state Y by a court applying the law of state X. See, e.g., Judgment of Nov. 15, 1956, Bundesgerichtshof, BGHZ, W.Ger., 22 Bundesgerichtshof in Zivilsachen 162 (enforcement of contingent fee, valid under the law of the District of Columbia where attorney's office located, not *contra bonos mores* in Germany).

The American lawyers offering to represent Bhopal victims on a contingent fee basis have been variously described as "vultures", preying on the victims' misfortune, and "private attorneys general," who enhanced the victims' bargaining position and introduced into India the notion of full accountability as of right. Compare, e.g., Frank, *Are Some Lawyers Vultures?* 71 A.B.A. J. Mar. 1985, at 17; Austern, *Is Lawyer Solicitation of Bhopal Clients Ethical?* Legal Times, Jan. 21, 1985, at 16; and Bergman, *The Scandal of U.S. Lawyers Seeking Clients in Bhopal*, N.Y.L.J., Jan. 17, 1985, at 1, col. 4; with Weinberg, *Insights and Ironies: The American Bhopal Cases*, 20 TEX. INT'L L.J. 307, 318-19 (1985); Galanter, *supra* note 15, at 292-93; and McNally, *Innocent Bystander*, Milwaukee J. Dec. 31, 1984, at 11, col. 1. See also the first footnote of Judge Keenan's opinion in the U.S. Bhopal case. *In re Union Carbide*, 634 F.Supp. at 844, reprinted in 25 INT'L LEGAL MATERIALS 773. "[T]hose members of the American bar who travelled the 8,200 miles to Bhopal [during December 1984 and January 1985] did little to better the American image in the Third World—or anywhere else." *Id.*

17. As indicated, *supra* note 16, the contingent fee is for the most part a peculiarly American institution. With regard to the availability of legal aid in different countries, see INTERNATIONAL LEGAL AID ASSOCIATION, *DIRECTORY OF LEGAL AID AND ADVICE FACILITIES AVAILABLE THROUGHOUT THE WORLD* (1966).

18. Even if victims and their families were allowed to appear *in pro per*, they would have great difficulty competing with the defendant(s) in the arena of complex litigation; indeed, their lack of counsel would probably further delay any recovery.

19. Court Fees Act (VII of 1870), 6 INDIA A.I.R. MANUAL 1191 (3d ed. 1970). "The Act provides that if a citizen wants to bring a civil case, he must pay a fee, typically by putting stamps on the complaint." Galanter, *supra* note 15, at 274.

to seek a substantial recovery.²⁰ Rules concerning the awarding of attorneys' fees and costs may also operate to keep victims out of the courts. "The legal system of the United States stands virtually alone in rejecting the general principle of 'loser pays all.'"²¹ Even if somewhat remote, the possibility of being ordered to pay the costs and attorneys' fees of the prevailing party is bound to have a deterrent effect on the filing of large claims: Claims may be reduced in amount or not filed at all, depending upon the likelihood of success in the action (including jurisdictional problems, discussed below). This factor will thus play a highly significant role when claimants litigate in virtually any forum but the United States, and may in fact figure prominently in the forum-selection decision.²²

A fourth pre-trial consideration, which would be applicable in only some cases, is that of sovereign immunity. This factor could come into play in a suit against either the exporter's home state or the state in which the accident occurred,²³ and could constitute a bar to actions against such defendants (including state agencies or instrumentalities).²⁴

20. As might be expected, it has been concluded that in India, the fee "dissuades claimants from filing large claims." Dhavan, *supra* note 15, at 297. See also Galanter, *supra* note 15, at 274-75. "[T]he British colonial rulers of India were convinced that Indians were too litigious. To restrain litigation, they decided to make people pay to use the courts." *Id.* at 274. While "the chances of the court fee being waived for the indigent victims of a disaster are extremely high" in India (Dhavan, *supra* note 15, at 300), as was in fact done in the Bhopal case, the mere existence of the fee is bound to have some deterrent effect on the filing of claims. In any event, seeking a waiver would consume valuable time.

21. R. SCHLESINGER, *COMPARATIVE LAW* 489-90 (3d ed. 1970). See also *supra* note 16, at 346, 665-66 (4th ed. 1980). Schlesinger points out that there are rare exceptions to the general U.S. rule of allowing successful *plaintiffs* to recover attorney's fees. *Id.* at 666-67. These exceptions, however, would not appear to be applicable to the kind of case under consideration. The "American rule" regarding the assessment of attorney's fees does not necessarily mean that a foreign judgment ordering the loser to pay the winner's costs—including attorney's fees—will not be enforceable in the United States. See Peterson, *Foreign Country Judgments and The Second Restatement of Conflict of Laws*, 72 *COLUM. L. REV.* 220, 254 (1972).

22. Robertson, *Introduction to the Bhopal Symposium*, 20 *TEX. INT'L L.J.* 269, 272 (1985).

23. There have been suggestions in the Bhopal case, for example, that the government of India, and perhaps that of Madhya Pradesh, the Indian state of which Bhopal is the capital, are at least partially responsible for the disaster. "It is possible to argue that the officers of the Indian Government were either guilty of negligence or breach of their statutory duty relating to the inspection and maintenance of the plant. The Indian Government had been warned by its own officers not to locate the plant so close to the town." Dhavan, *supra* note 15, at 302-03. See also 9 *Int'l Env't Rep. (BNA)* 343 (Oct. 8, 1986). For its part, Union Carbide has countersued the Indian government, "claiming it and the Madhya Pradesh state government were responsible for the deaths and injuries resulting from the chemical leak [because they] had allowed shanty dwellers to settle around the factory even though they knew of the dangers involved in the chemical processes used at the Bhopal plant." *Sacramento Bee*, Nov. 18, 1986, at A6, col. 1.

24. Dhavan, *supra* note 15, at 303, text at note 46 (citing *State of Rajasthan v. Mst. Vidhyawati*, 1962 A.I.R. (S.C.) 933 (India)); *Kasturi Lal v. State of Uttar Pradesh*, 1965 A.I.R. (S.C.) 1039 (India 1964).

Even in the case of non-sovereign defendants, personal jurisdiction may be difficult to acquire for victims of a Bhopal-like disaster.²⁵ The exporter will often be the target defendant, but may not be subject to jurisdiction at the place where plaintiffs were injured. Conversely, while a local subsidiary would most probably be amenable to jurisdiction at the situs of the accident, it may not have sufficient assets to satisfy any eventual judgment.²⁶ One lesson of the Bhopal litigation may be that suing at the exporter's home base could be worthwhile even if the action is eventually transferred, in effect, to the situs of the accident: Depending upon the conditions of the transfer or dismissal, plaintiffs might in this way be able to obtain jurisdiction over the foreign exporter and possibly increase the likelihood that an eventual judgment would be enforceable in the exporter's home country.²⁷

Assertion of judicial jurisdiction over the subsidiary by local (in the Bhopal case, Indian) courts would present no problem in countries following either the civil or the common law system.²⁸ However, the target defendant will probably be the parent company or foreign exporter of the hazardous technology, not only because the parent may have controlled the subsidiary, and may be responsible for, e.g., the defective design, process, or method of operation that led to the

25. See generally Weintraub, *Jurisdiction Over the Foreign Non-Sovereign Defendant*, 19 SAN DIEGO L. REV. 431 (1982); Comment, *The Minimum Contacts Standard and Alien Defendants*, 12 L. & POL'Y INT'L BUS. 783 (1980).

26. Other factors may also play important roles in the process of deciding where and whom to sue. As occurred in the Bhopal case, for example, plaintiffs may select a particular defendant at least in part because they wish to sue in an especially attractive forum. See generally *infra* note 31; see also *infra* note 46 (concerning the advantages of U.S. pre-trial discovery); Schwartz, *India Sues Union Carbide with Unique Complaint*, Legal Times, May 6, 1985, at 25, col.1 (concerning the advantages of U.S. law relating to substantive bases for relief and measure and type of damages).

27. Cf. Judge Keenan's conditional dismissal in the U.S. Bhopal case, requiring that: (1) Union Carbide submit to the jurisdiction of Indian courts and waive any defense based upon the statute of limitations; (2) Carbide agree to satisfy any Indian judgment providing that it comport with minimal due process requirements; and (3) Carbide "be subject to discovery under the model of the United States Federal Rules of Civil Procedure . . ." *In re Union Carbide Corp.*, 634 F. Supp. at 867. The second and third conditions were reversed on appeal. *Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp.*, 809 F.2d 195, 205-06 (2d Cir. 1987).

28. The subsidiary is incorporated under the laws of the forum state, has its plant there, and has committed an allegedly tortious act in that jurisdiction which resulted in injuries to local persons and property. In most states, any one of these contacts would provide a sufficient relationship with the forum to allow it to exercise judicial jurisdiction over the defendant. RESTATEMENT (REVISED) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES, § 421 (Tent. Final Draft 1985) [hereinafter FOREIGN RELATIONS RESTATEMENT], which "sets forth some rules and guidelines for the exercise of jurisdiction to adjudicate in cases having international implications, applicable to courts both in the United States and in other states."

accident,²⁹ but also—and perhaps chiefly—because the parent will have the deeper pocket.³⁰ Further, as in the Bhopal litigation, plaintiffs may wish to sue the parent in order to obtain the most attractive forum.³¹ Finally, it may be that no local subsidiary was involved, in

29. The complaint filed by the Union of India against Union Carbide in the United States District Court for the Southern District of New York, for example, predicated Carbide's responsibility on, *inter alia*, strict liability for an ultrahazardous activity, improper design, construction, maintenance and operation of the plant, failure to warn of known risks, negligence, breach of express and implied warranties, and misrepresentation. [Pending Litigation], *Env'tl. L. Rep. (Env'tl. L. Inst.)* at 65870 (Oct. 1985). Not surprisingly, Carbide U.S. has claimed that it only sold Carbide India the basic design package for the plant; it also claims that the accident was due to sabotage. 10 *Int'l Env't Rep. (BNA)* 45-46 (Feb. 11, 1987).

Claims against a foreign exporter of hazardous technology may be based upon one or more of several different theories, depending on the facts of the case. See OECD, *INTERNATIONAL INVESTMENT AND MULTINATIONAL ENTERPRISES, RESPONSIBILITY OF PARENT COMPANIES FOR THEIR SUBSIDIARIES* (1980) (surveying the legal situation in OECD member countries); Westbrook, *Theories of Parent Company Liability and the Prospects for an International Settlement*, 20 *TEX. INT'L L.J.* 321, 330 (1985); and Schwartz, *supra* note 26, at 25. These theories include: (1) vicarious liability of the parent for torts of the subsidiary; (2) direct liability of the parent for its own negligence, for failure to warn of a known risk, or for operating an ultrahazardous activity; (3) direct liability of the parent for defective products manufactured by the parent and marketed or distributed through the subsidiary (or through an unrelated person or organization); or (4) possibly even some novel theory, such as "multinational enterprise liability," a doctrine advanced apparently for the first time in India's U.S. suit against Union Carbide. See Schwartz, *supra* note 26, at 28-29 (discussion of "multinational enterprise liability"); Westbrook, *supra*, at 324; and *Int'l Env't Rep. (BNA)* No. 2, at 45-46 (Feb. 11, 1987). Schwartz classifies this theory as a form of vicarious liability. American lawyers representing India in the suit in Bhopal district court explain that the theory "holds that a company controlling a majority interest in an enterprise involved in manufacturing or handling hazardous products has a 'non-delegable duty to assure that the activity does not cause harm.'" 10 *Int'l Env't Rep. (BNA)* 46 (Feb. 11, 1987). Mr. Bud G. Holman, counsel for Union Carbide, has responded that "[t]he purported theory of multinational enterprise liability is contrary to the principle that a parent corporation is not liable for the torts of its subsidiaries unless exceptional circumstances exist which justify piercing the veil." Holman, "The Litigation Issues," paper presented at panel on "Hazardous Products and Technologies in Transnational Business," Annual Meeting of the American Bar Association's Section of International Law & Practice, Aug. 12, 1986, at 41 citing *anno.*, 7 *A.L.R.3d* 1343.

30. In the Bhopal litigation, the Indian government urged "a district court in Bhopal to restrain the Union Carbide Corporation from selling any more of its assets, saying such sales could reduce any eventual settlement for victims of the 1984 gas tragedy." *N. Y. Times*, Nov. 2, 1986, at 6, col. 1. On Nov. 17, 1986, the Indian court "issued a temporary restraining order blocking Union Carbide from selling any of its assets, paying dividends or taking other measures in connection with asset sales." *Sacramento Bee*, Nov. 18, 1986, at A6, col. 1. And on Nov. 28, 1986, the Indian government accepted Union Carbide's offer to maintain \$3 billion in assets. *Id.* Nov. 30, 1986, at D4, col. 2.

31. For discussions of the attractiveness of the United States as a forum in the Bhopal litigation, see Dhavan, *supra* note 15, *passim*; and Galanter, *supra* note 15, at 273. See also the description of plaintiff's claims in that litigation, resisting Carbide's motion for dismissal from a federal district court on forum non conveniens grounds, *Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp.*, 809 F.2d 195 (2d Cir. 1987). In that case, Judge Keenan cited the observations of the U.S. Supreme Court in *Piper Aircraft Co. v. Reyno*, 454 U.S. 235, 252 n.18 (1981), concerning "the liberality of United States federal law as compared to much foreign law with respect to availability of strict liability for tort, malleable and diverse choice of law rules among the 50 states, availability of jury trials, contingent fee arrangements and extensive discovery provisions" *In re Union Carbide Corp. India*, 634 F. Supp. at 846.

which case the foreign manufacturer or exporter may be the only available defendant.

If suit is brought against a foreign entity having no direct presence in the forum state, the question of jurisdiction over that entity is almost certain to be challenged, costing victims time and money. Even in the United States, which has shown perhaps the greatest readiness to "pierce the corporate veil,"³² mere ownership of a majority or even all of the subsidiary's stock would probably not be enough by itself to allow the state in which the subsidiary is incorporated to assert jurisdiction over the parent.³³ On the other hand, earlier reluctance of U.S. courts to reach a foreign parent through a local subsidiary³⁴ has given way to a recognition that assertion of jurisdiction over the foreign parent is permissible where the parent so controls the subsidiary as to disregard its separate corporate existence.³⁵ Obviously, however, this theory would not be available

32. Professor Westbrook has written that "the 'piercing' doctrine is a murky one in United States law, with a confused conceptual underpinning, and the comments of other [authorities] do not lead us to expect a more coherent doctrine in Indian law. For this reason, I doubt its usefulness in the determination of the parent's responsibility in the Bhopal disaster." Westbrook, *supra* note 29, at 323-24.

While the courts of European countries have generally been much more conservative than their American counterparts with regard to "piercing the corporate veil", the Court of Justice of the European Communities has effectively reached through a local subsidiary to a foreign parent in an antitrust case. See cases No. 6/73 and 7/73, *Instituto Chemioterapico Italiano S.p.A. & Commercial Solvents Corp. v. E.C. Comm'n*, [1974 Transfer Binder] Common Mkt. Rep. (CCH) § 8209, 8800.

33. See, e.g., *Cannon Manufacturing Co. v. Cudahy Packing Co.*, 267 U.S. 333 (1925); *Conn. v. ITT Aetna Finance Co.*, 105 R.I. 397, 252 A.2d 184 (1969). RESTATEMENT (SECOND) CONFLICT OF LAWS § 52 comment b (1971) [hereafter CONFLICTS RESTATEMENT].

See also the decision of the United States District Court for the Northern District of Illinois in an analogous case of marine oil pollution, specifically that resulting from the infamous *Amoco Cadiz* spill. There, the court found that the parent corporation, Standard Oil of Indiana, "exercised such control over its subsidiaries that those entities would be mere instrumentalities," and accordingly found the parent "responsible for the tortious acts of its wholly owned subsidiaries and instrumentalities." 7 Int'l Env't Rep. (BNA) 129 (May 9, 1984).

For a comparative study of the law on this point in OECD countries (24 principally western nations, including European and Nordic countries, Australia, New Zealand, Japan, Canada, the United States, and Turkey) see OECD, RESPONSIBILITY OF PARENT COMPANIES FOR THEIR SUBSIDIARIES (1980).

34. See, e.g., authorities cited *supra* note 33.

35. See CONFLICTS RESTATEMENT, *supra* note 33, § 52 comment b. See generally Comment, *Jurisdiction over Parent Corporations*, 51 CALIF. L. REV. 574 (1963). For a discussion of the criteria applicable to the determination of whether the subsidiary's separate corporate existence has been maintained, see *Public Admin. of County of N.Y. v. Royal Bank of Canada*, 19 N.Y.2d 127, 224 N.E.2d 877, 879 (1967). See also *Taca Int'l Airlines v. Rolls-Royce of England Ltd.*, 15 N.Y.2d 97, 204 N.E.2d 329 (1965); *Vitro Electronics v. Milgray Electronics, Inc.*, 255 Md. 498, 258 A.2d 749 (1969); *State ex rel. Grinnell Co. v. MacPherson*, 62 N.M. 308, 309 P.2d 981 (1957), *cert. denied* 355 U.S. 825 (1957); *SCOLES & P. HAY, CONFLICT OF*

where it is claimed that plaintiff's injuries resulted from the foreign corporation's *failure* to exercise adequate supervision and control over a local subsidiary.³⁶ Still, plaintiff in such a case could seek to hold the foreign corporation directly responsible if its failure to supervise were negligent (*i.e.*, where it had breached a duty of supervision).

Whether jurisdiction over a foreign manufacturer will lie in the case of injuries caused by a defective product is a question whose answer may depend upon where the suit is brought. While in the European Community jurisdiction would lie at the place where the injury occurred,³⁷ this will often not be the case in the United States. In the case of *World-Wide Volkswagen Corp. v. Woodson*,³⁸ for example, the United States Supreme Court held that Oklahoma could not exercise jurisdiction over the New York retailer or distributor of an automobile in a products liability action to recover for injuries sustained in an Oklahoma accident. The Court explained that it was not enough that the defendants could have foreseen that the automobile would cause injury in Oklahoma.³⁹ The Court did indicate, however, that it would be consistent with the Due Process Clause of the U.S. Constitution to assert "personal jurisdiction over a [foreign] corporation that delivers its products into the stream of commerce

LAW 337 (1982).

It has been alleged in the U.S. Bhopal litigation that the parent, Union Carbide U.S., has exercised a sufficient measure of control over its Indian subsidiary to give rise to the parent's responsibility. See Plaintiff's Brief in Support of Motion to Transfer Pursuant to 28 U.S.C. § 1407, *In re Disaster at Bhopal, India*, MDL No. 626 (Judicial Panel on Multidistrict Litigation, Dec. 21, 1984). See also Press, *Bhopal: Battling for Business*, Newsweek, Feb. 4, 1985, at 80.

See also W. Reese & M. Rosenberg, *Conflict of Laws* 128 (8th ed. 1984) (citing *Florio v. Powder Power Tool Corp.*, 248 F.2d 367 (3d Cir. 1957); *Kahn v. Maico Co.*, 216 F.2d 233 (4th Cir. 1954)); *Frummer v. Hilton Hotels Int'l, Inc.*, 19 N.Y.2d 533, 227 N.E.2d 851 (1967)).

36. See Westbrook, *supra* note 29, at 323. It has been suggested that the injuries at Bhopal resulted from Union Carbide's failure to supervise adequately the local subsidiary. See, e.g., N.Y. Times, Dec. 12, 1984, at A1, col. 2; Manchester Guardian, Dec. 16, 1984, at 1, col. 1.

37. See 1968 European Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, *as amended* by the Convention of Accession, art. 5(3), 21 O.J. EUR. COMM. (No. L 304) 77 (1978), Common Mkt. Rep. (CCH), ¶¶ 6003-79, *reprinted* in 18 INT'L LEGAL MATERIALS 21 (1979). See *Bier v. Mines de Potasse, E. Comm. Ct. J. Rep.* 1735, 1748 (1976); 1 Comm. Mkt. L.R. 284, 301 (1977) (the interpretation of this provision by the Court of Justice). If defendant is not domiciled in a contracting state, any rules of exorbitant jurisdiction of the forum state may be used against it. EEC Convention on Jurisdiction, art. 4, § 2. See also *infra* note 44 and accompanying text.

38. 444 U.S. 286 (1980).

39. *Id.* at 566. Otherwise, said the Court, "[e]very seller of chattels would in effect appoint the chattel his agent for service of process. His amenability to suit would travel with the chattel." *Id.*

with the expectation that they will be purchased by consumers in the forum state."⁴⁰ But the viability of the "stream of commerce" theory was cast into doubt by the Supreme Court's recent decision in *Asahi Metal Industry Co., Ltd. v. Superior Court*.⁴¹ In *Asahi*, all nine justices agreed that California lacked jurisdiction over a Japanese manufacturer of a component part in an indemnification action by a Taiwanese manufacturer, but disagreed as to how the "stream of commerce" doctrine should be applied.

In view of the fact that the United States is a principal "home country" of exporters of hazardous technology,⁴² American jurisdictional rules take on importance for the enforcement in the U.S. of a judgment rendered in an importing country. Such a judgment would not be denied recognition and enforcement in the United States for jurisdictional reasons if it were based on grounds comparable to those recognized as constitutional by the U.S. Supreme Court. To take another example, the Federal Republic of Germany gives plaintiff the option of suing either at the place of the tortious act (e.g., sale of the defective product) or at the place where the injury was suffered.⁴³ Indeed, one commentator has concluded that German law affords a more extensive jurisdictional reach than is available under American law, and that *World-Wide Volkswagen* would have come out differently in Germany. This writer suggests that, unlike the situation in the United States, a German court would

40. *Id.* at 567. See also *Oswalt v. Scripto, Inc.*, 616 F.2d 191 (5th Cir. 1980); *Poyner v. Erma Werke GmbH*, 618 F.2d 1186 (6th Cir. 1980); *Duple Motor Bodies Ltd. v. Hollingsworth*, 417 F.2d 231 (9th Cir. 1969); *Buckeye Boiler Co. v. Superior Court*, 71 Cal. 2d 893, 458 P.2d 57 (1969); *Regie Nationale des Usines Renault v. Superior Court*, 208 Cal. App. 2d 702, 25 Cal. Rptr. 530 (1962); *Gray v. American Radiator & Standard Sanitary Corp.*, 22 Ill. 2d 432, 176 N.E.2d 761 (1961). See also E. COLES & P. HAY, *supra* note 35, at 338-39; Weintraub, *supra* note 25, at 431; and Comment, *supra* note 25 at 783. But see *Samuels v. BMW of North America, Inc.*, 554 F. Supp. 1191 (E.D. Tex. 1983) (no jurisdiction over German manufacturer where allegedly defective automobile sold in forum by "autonomous subsidiary"); cf. 208 Cal. App. 2d at 702.

41. 107 S. Ct. 1026 (1987). See Weintraub, *Asahi Sends Personal Jurisdiction Down the Tubes*, 23 TEX. INT'L L.J. 55 (1988).

42. Multinationals that export hazardous technology are headquartered principally, and probably in roughly equal proportions, in Europe, the United States, and Japan. (A 1976 study states that 90 per cent of the world's multinationals are incorporated and headquartered in the United States [Note, *Control of Multinational Corporations' Foreign Activities*, 15 WASHBURN L.J. 435, 436 (1976)], but this would now appear to be outdated.) Telephone conversation with Harris Gleckman, Legal Officer, U.N. Center for Transnational Corporations, Jan. 22, 1987. A number of different legal regimes would therefore have to be studied to ascertain whether there are common standards of "indirect" jurisdiction—i.e., bases of jurisdiction utilized by the court whose judgment is presented for enforcement in another state.

43. See ZIVILPROZESSORDNUNG [ZPO] § 32 (W. Ger.); OLG Hamm, N.J.W. 58, 1831; Neumann-Duesberg, N.J.W. 55, 696-98.

have jurisdiction over the defendant where the only contact with Germany was that the injury occurred there.⁴⁴

The foregoing discussion indicates that it may be possible in some cases for the courts of the importing country to assert personal jurisdiction over the foreign exporting company. Even so, possible problems of proof or other potential obstacles may cause the "importing" state to wish to have appropriate assurances of the exporting company's amenability to jurisdiction. Furthermore, the facts necessary to support jurisdiction in the importing country would not be present in many cases. A possible approach to providing jurisdictional assurances is therefore discussed in part II, below.

Even if there is no jurisdictional problem (because, e.g., suit is brought against the exporter at its home), the Bhopal case has demonstrated only too dramatically that enormous amounts of time and money can be expended on litigating the question of the proper forum for the trial.⁴⁵

If American-style discovery is allowed, which it is usually not outside the U.S.,⁴⁶ additional time and claimant resources will be consumed. This will be true even if discovery orders are confined to the territorial jurisdiction of the court. A very real possibility, especially if American parties are involved, is that suit will be brought in the United States principally to take advantage of liberal American discovery rules.⁴⁷ While this tactic may result in the pre-trial produc-

44. See von Dryander, *Jurisdiction in Civil and Commercial Matters Under the German Code of Civil Procedure*, 16 INT'L LAW. 671, 691 (1982).

45. See *supra* text accompanying note 3.

46. With respect to the lack of American-style pre-trial discovery in civil law countries, see generally R. SCHLESINGER, *supra* note 16, at 399-400.

By way of illustration of the general hostility to American-style discovery, most states parties to the Hague Convention on the Taking of Evidence Abroad in Civil and Commercial Matters (done at The Hague 18 Mar. 1970) 23 U.S.T. 2555, T.I.A.S. No. 7444, 847 U.N.T.S. 231, reprinted in 28 U.S.C.A. § 1781 (Supp. 1987) other than the United States, have declared (as permitted by the Convention) that they will not execute Letters of Request "issued for the purpose of obtaining pre-trial discovery of documents as known in Common Law countries." See also the discussion of "blocking statutes," passed in response to the perceived intrusive effects of discovery orders by U.S. courts, in RESTATEMENT (REVISED) FOREIGN RELATIONS LAW OF THE UNITED STATES § 437 (Tent. Final Draft 1985) reporter's note 4.

47. Of course, there are many factors . . . which determine a lawyer's choice [of forum]; but . . . the differences in the conduct of discovery loom larger than all the other factors. Sometimes, a plaintiff engaged in litigation in a civil-law country will go so far as to institute a second action here, without intending to bring the case to trial in our courts, but merely for the purpose of obtaining the advantage of American-style discovery.

R. SCHLESINGER, *supra* note 16, at 400. In the Bhopal litigation, suit was initially brought in the United States in large part because of the extensive discovery allowed there. See *In re Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp.*, 809 F.2d 195 (2d Cir.

tion of revealing evidence, it is also likely to give rise to expensive and time-consuming challenges regarding the appropriateness of the chosen forum.

Consolidation of claims and appropriate representation of victims present other potential obstacles. The handling of all claims resulting from a mass disaster in a consolidated procedure results in obvious economies.⁴⁸ Further, defendant would be likely to find it less difficult to settle victims' claims if all victims were represented by one, or a small group of individuals or entities.⁴⁹ But apart from the mechanics of consolidating claims or lawsuits, there is the problem of representation of the class of victims and survivors.

Through specially-enacted legislation, the Indian government has asserted the exclusive right to represent all claimants in the Bhopal case "whether within or outside India."⁵⁰ But this law could not operate extraterritorially to bar a court in another country from entertaining a lawsuit by a victim (although the court could give it effect voluntarily as a matter of comity, based on India's jurisdiction to prescribe in respect of its nationals).⁵¹ Thus, absent a single representative of all claimants, a defendant could not be certain that there were no "holdouts" who would make claims outside the settlement process—a factor which could abort that process.

1987), reprinted in 25 INT'L LEGAL MATERIALS 771, 776. Judge Keenan observed that, "To a great extent, the plaintiffs in this case argue that Indian courts do not offer an adequate forum for this litigation by virtue of the relative 'procedural and discovery deficiencies [which] would thwart the victims' quest for justice."

48. See *supra* note 4, indicating that the 145 actions that were filed in the United States in the wake of the Bhopal disaster were all joined and assigned to the federal district court for the Southern District of New York. *In re Union Carbide Corp.*, 634 F. Supp. 842, 845, 25 INT'L LEGAL MATERIALS 771, at 773.

49. See, e.g., Bilder, *supra* note 8; Stein, *supra* note 6; and Lewin, *supra* note 11.

50. Bhopal Gas Leak Disaster (Processing of Claims) Act, 1986, § 3, reprinted in 25 INT'L LEGAL MATERIALS at 884 (1986). See *supra* note 23 (discussion of Bhopal Gas Leak Disaster Act). The power of the United States government (in particular, the President) to settle, suspend or even extinguish claims has been upheld by U.S. courts in the context of the U.S.-Iran hostage crisis and the related executive agreement which resolved it. See *Dames & Moore v. Regan*, 453 U.S. 654 (1981); and *Persinger v. Islamic Republic of Iran*, 690 F.2d 1010 (D.C. Cir. 1982).

51. See, e.g., FOREIGN RELATIONS RESTATEMENT, *supra* note 28, §§ 402, 403. As suggested by the statement in the text in parenthesis, India would have jurisdiction to prescribe rules in respect of the conduct of its nationals abroad, and to enforce such rules in India against such nationals. See *id.* §§ 402, 403, 431.

Another approach has been suggested by Westbrook, who observes that Congress could "adopt appropriate legislation giving India the status of representative *parens patriae* for the victims [of the Bhopal disaster] with the power to bind them in a settlement." Westbrook, *supra* note 29, at 330. This would hardly be possible in respect of every mass disaster involving hazardous technology.

Determination of which country's law is applicable is another judicial task that could consume considerable time. This question is often handled by pre-trial motion. Precisely because of the enormous potential impact of the decision as to the applicable law, this question is one which will be fully and strenuously litigated, again at high cost in terms of time and money.

A dispute as to whether the defendant can be held strictly liable or will be liable only for negligence may arise even after the court has determined which state's law to apply.⁵² This may be a crucial point in view of the difficulty in many cases of proving that an accident involving high technology was due to the "fault" of a particular individual or entity.

During the trial itself, plaintiffs in cases involving sophisticated technology are almost certain to face formidable problems of proof.⁵³ It is true that this factor is not unique to cases involving hazardous technology that is exported. Yet because of the foreign elements and large number of victims involved, it is one that will be particularly time-consuming. Some of the problems that are likely to arise in this area are: Proof of foreign law,⁵⁴ proof of fault and causation, and identification of victims.

The latter has proven to be a very serious problem in the Bhopal case⁵⁵ with regard to both deceased and injured victims. Unfortunately, the outlook is probably about the same for most serious, technology-related accidents in Third World countries. The problem of representation could be avoided if the government were allowed to sue in a *parens patriae* capacity; it could then distribute the funds recovered outside the litigation process. But this would not solve the ultimate difficulty of identifying those entitled to compensation, at

52. Indeed, it may arise at the stage of determining the appropriate forum. See e.g., *In re Union Carbide*, 634 F. Supp. 842, 849-50 (S.D.N.Y. 1986), 25 INT'L LEGAL MATERIALS 779.

53. The Bhopal case provides an apt illustration. There is still disagreement, for example, on the fundamental question of how the accident happened. Possibilities range from routine water washing (India's contention) to sabotage (Union Carbide's claim). See e.g., Stille, *What Really Caused the Gas Leak in Bhopal?* Nat'l L.J., Feb. 29 1988, at 45, col. 1, reporting that Carbide's lawyers "spent nearly a year in India building Carbide's sabotage defense." *Id.*

54. See R. SCHLESINGER, *supra* note 16, at 45-88. Schlesinger points out that under the traditional common law approach, foreign law must be proved as a "fact" by the party relying upon it. While this rule has been relaxed somewhat (see, e.g., FED. R. CIV. PROC. 44.1), it is still the governing principle in many cases. In Germany, on the other hand, ascertainment of foreign law is treated as a question of law, and is the responsibility of the court. R. SCHLESINGER, *supra* note 16, at 65.

55. See, e.g., Kramer, *supra* note 7 and Galanter, *supra* note 15, at 282-83. See also *supra* note 54 and accompanying text.

least when circumstances are such as they were at Bhopal.⁵⁶ Perhaps the best that can be done is to assure that a system is in place that will make a sum of money available as quickly as possible to a distribution mechanism on the scene, operated under the authority of the local government, and leave it to that mechanism to determine appropriate levels of compensation and to distribute the funds as best it can.

Interlocutory appeals, which are allowed more readily in some legal systems than in others, may result in further delay. "A recent Indian Supreme Court opinion listed 15 types of orders that could be appealed during trial."⁵⁷

Plaintiffs' troubles are not over even assuming they are able to obtain a favorable judgment. If the judgment is rendered by a court in a jurisdiction other than that in which defendant has assets sufficient to satisfy the judgment, plaintiffs will have to seek to enforce it at the situs of defendant's assets. Unfortunately, it is by no means certain that this will be possible. While the trend internationally seems to be in favor of recognition and enforcement of a foreign country judgment without examining the merits of the decision, practice among states varies widely,⁵⁸ and some important technology-exporting countries (the United States is a notable example) have no, or few agreements on the subject. Thus, a judgment obtained in the state where the injury occurred may be difficult or impossible to enforce in the state in which the exporting company is located. In the United Kingdom, for example, the English rules of indirect jurisdiction must be satisfied in order for a non-EEC foreign judgment to be enforceable. These rules require that the judgment debtor either be a resident of the foreign country or have submitted to the jurisdiction of the foreign court.⁵⁹ These requirements would

56. "In Bhopal, the complexities of distributing the money are much greater [than they were in the 'Agent Orange case]. No proper record has been kept of the persons injured or dead." Dhavan, *supra* note 15, at 305. "Poor people don't know that they must get death certificates That day, even at the cremation place, nobody was present to (record) names and addresses. Five hundred people were cremated at a time in layers of bodies and logs." Kramer, *supra* note 7, at 10, quoting the superintendent of the Bhopal railroad police station.

57. Adler, *supra* note 6, at 71. Furthermore, according to the affidavit of Professor Galanter filed in the U.S. Bhopal litigation, the Indian code of civil procedure provides for "revisions", which can be sought by appeal during trial on the ground that the order appealed from, "if allowed to stand, would occasion a failure of justice." *Id.* (quoting from INDIA CODE CRV. PROC. § 115). This is a broad standard indeed, and almost encourages interlocutory appeals.

58. See FOREIGN RELATIONS RESTATEMENT, *supra* note 28, § 481, reporter's note 6, summarizing the practice in a variety of countries.

59. See *Schibbsy v. Westenholz* [1870] 6 Q.B. 155; *Singh v. Rajah of Faridkote*, App. Cas. 670 (1894); and *Emanuel v. Symon*, 1 K.B. Div'1 Ct. 302 (1908).

seldom be satisfied in a products liability case against a foreign exporter.

Even if there is no enforcement problem, however, defendant may simply have insufficient assets to satisfy a judgment in a case involving a large number of victims. The Indian government has been concerned about this possibility in the Bhopal case, and at one point obtained an order, which has since been withdrawn, temporarily restraining Union Carbide from reducing its assets below a level that would be adequate to satisfy any judgment in the case.⁶⁰

A final post-trial problem, that of distributing any recovery, has been touched upon earlier in connection with the problem of identification of victims. If victims are not identified and the appropriate level of compensation for their injuries determined during the trial, this process will further delay compensation of victims after the trial has concluded.

The foregoing discussion has identified some of the features of the litigation process that tend to delay the provision of compensation to victims of mass disasters, particularly those involving imported hazardous substances or technology. These factors also result in tremendous costs to the defendant, the plaintiffs, and the judicial systems of one or more countries. As discussed earlier, the most efficient way in which to avoid these costs would seem to be to establish in advance a mechanism that would process and pay, outside of the litigation context, any claims that arise from a future accident. The establishment of such a mechanism could be approached in various ways, including the conclusion of a convention to which technology exporting and importing countries would be parties; the harmonization of the relevant laws and institutions of those countries, perhaps through a "model law" to be prepared by an international organization; and the inclusion of appropriate provisions in an agreement between the exporter and the importing country. Each of these approaches has its own inherent problems, but it is submitted that even an imperfect anticipatory compensation scheme holds more promise than the present *post hoc* options.

60. Sacramento Bee, November 30, 1986, at D4, col. 2, reporting that the Indian government on November 29, 1986 accepted Union Carbide's offer to maintain "\$3 billion in assets to cover claims from the Bhopal tragedy" On November 17, Judge G.S. Patel of the Bhopal district court had ordered Carbide not to sell off assets or pay dividends. *Id.* See also N.Y. Times, Nov. 2, 1986, at 6, col. 1; and Sacramento Bee, Nov. 18, 1986, at A6, col. 1. On Nov. 30, 1986, the judge lifted the injunction he had imposed on Nov. 17. Int'l Env. Rptr. (BNA), Dec. 10, 1986, at 441.

It has already been noted that lawsuits may result from a technology-related accident notwithstanding the existence of a pre-arranged mechanism. Any reform strategy should therefore anticipate this eventuality, and should attempt to address not only obstacles inherent in the judicial process, but also the kinds of disparities described in part I. Possible methods of dealing with these problems are outlined in part II.

II. PROPOSALS FOR EXPEDITING RELIEF

Part I of this study has surveyed the most prominent features of the litigation process that tend to delay the provision of relief to victims of mass disasters involving hazardous substances or technology which has been imported into the country where the accident occurred. Part II will propose a variety of methods by which the provision of relief might be expedited.

The proposals developed in this part are based on the hypothesis that two different but complementary approaches to expediting relief are necessary. The first approach anticipates the possibility that an accident may occur and provides for the establishment, in advance, of institutions and mechanisms designed to ensure prompt and adequate compensation of victims. The second approach relates to *post hoc* remedial efforts. It assumes that at least some claims arising from an accident will be litigated (whether or not an applicable pre-arranged compensation scheme is in place) and addresses obstacles inherent in the litigation process.

It is proposed that these two approaches be pursued simultaneously via three types of instruments, or vehicles: model contractual provisions, a conventional regime, and a model law. Both the anticipatory and the *post hoc* approach may coexist within one instrument and, indeed, should be designed to be complementary. While each type of vehicle has its own inherent advantages and disadvantages, a given vehicle may not be suited to the solution of a specific kind of problem. For example, harmonization of disparate standards of liability could not be approached through a contract, unless a model contract containing provisions on the subject were widely adopted. In the sections that follow, the main features of each potential vehicle will be described in broad outline.

Before turning to the specific proposals, however, it should be emphasized that any approach to the problem under consideration must be balanced if it is to succeed. Just as ignoring the problems of hazardous technology is futile and potentially disastrous, so also

deterring foreign investment through draconian measures serves no one's interest. This article does not address the setting of safety standards and other aspects of a broad strategy of accident prevention.⁶¹ But any approach to the problem of promptly compensating victims should be consistent with the larger goal of achieving a balance between the maximum benefit and minimum detriment to both the exporter and importing country. Or, as stated in various international instruments concerning the regulation of the multinational enterprise, the objective should be to "encourage the positive contributions which multinational enterprises can make to economic and social progress and to minimize and resolve the difficulties to which their various operations may give rise."⁶²

A. Model Contract

Exporters of technology often enter into agreements with importing countries, particularly when they plan to establish an affiliate there.⁶³ A state may choose to exclude totally the importation of certain technologies, or may permit it subject to varying degrees of restrictions and conditions.⁶⁴ The state enjoys its greatest bargaining power prior to authorizing the importation of the technology in question or the establishment of the local affiliate, as the case may be. It would therefore have good prospects for securing certain assurances from the would-be exporter that would ensure, or at least facilitate,

61. See generally Natkin, *Once is Too Often—Corporate Responsibility in the Aftermath of Bhopal*, WORLD RESOURCES INSTITUTE, JOURNAL '85, 62 (1985); and Pearson, *What Has to be Done to Prevent More Bhopals?* WORLD RESOURCES INSTITUTE, JOURNAL '85, 58 (1985).

62. ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, Guidelines for Multinational Enterprises (1986); DECLARATION BY THE GOVERNMENTS OF OECD MEMBER COUNTRIES AND DECISIONS OF THE OECD COUNCIL ON INTERNATIONAL INVESTMENT AND MULTINATIONAL ENTERPRISES 11, § 2 (1976). This language is repeated in ECOSOC, Transnational Corporations: Code of Conduct; Formulations by the Chairman 13 U.N. Doc. E/C.10/AC.2/8 13 (1978) and INTERNATIONAL LABOR ORGANIZATION, TRIPARTITE DECLARATION OF PRINCIPLES CONCERNING MULTINATIONAL ENTERPRISES AND SOCIAL POLICY reprinted in 17 INT'L LEGAL MATERIALS 422 (1978).

63. One study notes that the benefits from such agreements are not all one-directional. The foreign MNE [multinational enterprise] investor is often desirous of an explicit agreement to lend legal enforceability to the assurances on the part of the host government that guarantee the investor the control he needs to ensure efficiency of operations. Moreover, it removes some of the vagueness and uncertainties at the outset by defining the terms of the investment and establishing a certain degree of responsibility, on the part of the host government, implicit in the host's recognition of the investment. C. WALLACE, LEGAL CONTROL OF THE MULTINATIONAL ENTERPRISE 72 (1982).

64. See generally *id.* chapters III (exclusionary techniques at entry) and IV (conditional entry).

the provision of compensation in the event of an accident.

Both the exporter and the importing country have incentives to reach such an agreement. The possible difficulty of proving jurisdictional facts (a factor operating in the exporter's favor), coupled with the possibility that jurisdiction will be found to exist in many cases if such facts can be proven, as well as the exporter's amenability to suit in its home country (factors operating in favor of the importing country and the victims), make it desirable from the standpoints of both parties to agree in advance upon a means of providing disaster relief that does not involve the courts. That this did not prove possible *after* the accident in the Bhopal case does not mean it would not be possible and should not be considered prior to the importing government's approval of the exporter's plans.

As discussed below, the exporter may well be willing to accept potential liability in advance, even on a no-fault basis, if the extent of liability is limited, rather than be excluded totally from the country or run the risk of being subjected to a potentially ruinous judgment in a lawsuit. Such a course should be more appealing to both the exporter and the importing country, and would ensure provision of compensation to victims much more rapidly than through litigation.

It would seem highly desirable that one of the many international bodies that has been active in this field⁶⁵ standardize these kinds of measures in the form of model contractual provisions, and promulgate them for possible utilization by importing or host countries. Possible provisions to be included in such a model instrument will be described generally in the following paragraphs. Many of them could also take the form of provisions of a convention, and will be alluded to in the discussion of that vehicle below. Measures designed to avoid litigation will be discussed in the first section. In the event that the parties cannot agree on such provisions, it is to be hoped

65. These organizations include the United Nations Economic and Social Council (ECOSOC), the United Nations Commission on Trade and Development (UNCITRAL), the Organization for Economic Co-operation and Development (OECD), the International Labor Organization (ILO), the United Nations International Law Commission (ILC), and the International Chamber of Commerce (ICC). See the OECD, ECOSOC, and ILO documents cited *supra* note 62; ECOSOC, Commission on Transnational Corporations, *Transnational Corporations and Issues Relating to the Environment* Report of the Secretary-General, U.N. Doc., E/C.10/1986/15 (1986); OECD, OECD AND THE ENVIRONMENT (1986); UNCITRAL, Draft Legal Guide on Drawing Up International Contracts for Construction of Industrial Works, Report of the Secretary General, U.N. Doc. A/CN.9/WG.V/WP.20 and Add.1-28, (1986); ICC, GUIDELINES FOR INTERNATIONAL INVESTMENT (1974); see current work of the ILC on International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law.

that they can at least come to terms on rules applicable in the event of litigation. The latter are discussed in the second section.

1. Provisions Designed to Avoid Litigation

It perhaps goes without saying that any agreement between the exporter and importing country should contain provisions relating to the prevention of accidents. This subject is beyond the scope of the present article, but it may be noted that issues such as the following should be covered: Full disclosure of known risks, the extent to which any relevant controls in the "exporting" country will apply, and safety standards to be adhered to.⁶⁶

Second, and of greatest relevance to the present study, the agreement should make provision for interim relief⁶⁷ and final compensation in the event of an accident. Perhaps the simplest and most effective way to ensure that a fund of reasonable size will be available for both interim relief and final compensation is to require the exporter, at least under appropriate circumstances,⁶⁸ to provide some form of financial security, such as a bond or insurance,⁶⁹ which would cover such needs (up to a certain limit) without regard to fault. The "no-fault" feature is important because resolving disputes as to whether the exporter or a local affiliate was negligent would

66. Many of these issues are involved in the debate over whether the "prior informed consent" (PIC) of a prospective importing country should be required before the export of hazardous substances or technology is allowed. See generally, Ashford and Ayers, *Policy Issues for Consideration in Transferring Technology to Developing Countries*, 12 Ecology L.Q. 871 (1985). For an argument against PIC, see the paper delivered by Michael Walls at the Symposium on Development and the Environment (Dec. 4, 1987), forthcoming in N.Y.U.J. INT'L L. & POL. (1988). The environment ministers of the European Community recently rejected prior informed consent as the basis for regulations concerning the import and export of dangerous chemicals, opting instead for a regime of prior notification. 10 Int'l Env. Rep. (BNA) 639 (Dec. 9, 1987). Cf. *The Principles and Guidelines for the Safe Transfer of Technology*, European Council of Chemical Industry Federations (Apr. 15, 1987) (copy on file with THE TRANSNATIONAL LAWYER). Third world countries have succeeded in reopening the issue of PIC in the context of the proposed London Guidelines of the United Nations Environment Program (UNEP). The London Guidelines concern the exchange of information on chemicals in international trade. 9 Int'l Env. Rep. (BNA) 435 (Sept. 9, 1987).

67. The interim relief order issued by Judge Deo in the suit against Union Carbide in Bhopal, India has been hotly contested, and is under appeal as of this writing. 11 Int'l Env't Rep. (BNA) 117 (Feb. 10, 1988). Judge Deo ordered Union Carbide to make a \$270 million payment for the interim relief of Bhopal disaster victims, and gave Carbide two months to deposit the sum with the court. See also Stille, *supra* note 2, at 44.

68. See *infra* text accompanying note 90.

69. According to conversations the author has had with their officials, international organizations working in this area have considered the idea of using some type of financial security analogous to export performance bonds to guarantee that compensation will be available in the event of an accident involving hazardous technology.

consume precious time and other resources, and because victims must be compensated even where there has been no negligence.⁷⁰ It may be appropriate in some circumstances, such as where a heavily regulated plant is involved, for the importing country to join with the exporter in providing financial security. Such a "partnership" would help to encourage vigilance and care on the part of both parties.

A U.N. Secretariat survey of state practice relating, *inter alia*, to hazardous activities has recognized that this kind of insurance is not unusual:

When a policy decision is made to allow the performance of certain activities, knowing that they may cause injuries, efforts are made to provide, in advance, guarantees for the payment of compensation. The guarantees are in the form of requiring the operator of certain activities to either carry insurance policies or provide financial securities. Such requirements are similar to those stipulated in the domestic laws of many states regarding the operation of complex industries, as well as more routine activities such as driving and maintaining a car.⁷¹

The survey notes that "multilateral agreements have included provisions to *secure the payment of compensation in case of harm and liability*,"⁷² and points out that "[m]ost multilateral agreements con-

70. The entity actually disbursing the funds in the event of an accident would be subrogated to the victims' rights against the party at fault (e.g., a local subsidiary), if any. Subrogation is commonly provided for in pollution-compensation arrangements and disaster relief schemes. One example of a pollution compensation arrangement is the 1969 Civil Liability Convention. See 1969 Civil Liability Convention, Dec. 18, 1971, 973 U.N.T.S. art. 5, at 3 reprinted in 9 INT'L LEGAL MATERIALS 45, and in 1 B. RUESTER & B. SMMMA, INTERNATIONAL PROTECTION OF THE ENVIRONMENT 405, at 470 (1975) [hereinafter 1969 Civil Liability Convention]. The legislation enacted by the Italian government to provide relief for Seveso victims, (H. Smets, *Indemnisation des dommages*, *supra* note 6, at 332 note 24 provides an example of a disaster relief scheme.

It is because time is of the essence in providing compensation to victims that a "fault-with-a-reversed-burden-of-proof" technique is not desirable. The Tanker Owner's Voluntary Agreement on Liability for Oil Pollution (TOVALOP) takes this approach rather than that of strict liability. The effect of the liability provisions of that agreement is that there is a presumption that the tanker owner was negligent, but this presumption can be rebutted on proof that the discharge of oil from the tanker in question "occurred without fault on the part of the said Tanker." TOVALOP, clause IV(B). See the discussion of this agreement in R. M'GONIGLE & M. ZACHER, POLLUTION, POLITICS, AND INTERNATIONAL LAW: TANKERS AT SEA 157-59 (1979) [hereinafter M'GONIGLE].

71. Survey of State Practice Relevant to International Liability for Injurious Consequences Arising Out of Acts not Prohibited by International Law, U.N. Doc. ST/LEG/15 at 211, (1984) [hereinafter U.N. Survey].

72. *Id.* (emphasis in original) (referring to and quoting relevant provisions from the Convention on the Liability of Operators of Nuclear Ships, (May 25, 1962)), reprinted in 1 B. RUESTER & B. SMMMA, INTERNATIONAL PROTECTION OF THE ENVIRONMENT 405 (1975)

cerning nuclear activities are in this category.”⁷³ Compulsory insurance has also been provided for in instruments relating to noxious and hazardous substances.⁷⁴

A number of multilateral agreements relating to “ultrahazardous” activities, including some of those just referred to, recognize several important principles that apply equally to the subject presently under consideration: First, that the activity in question is socially beneficial, sometimes even essential; second, that the activity cannot be conducted without some risk that it will cause harm (and in some cases—*e.g.*, nuclear reactors—while the risk may be very slight, the potential harm may be catastrophic); third, that such activities, because of their social utility, should be protected from potentially ruinous liability;⁷⁵ fourth, that in the case of an accident, fault may be very difficult, impossible, or unduly time-consuming to prove; and finally, that those suffering injuries as a result of the operation of such activities should receive reasonable compensation.⁷⁶ These considerations have resulted in the establishment of conventional regimes providing for strict but limited liability of those operating activities entailing an unavoidable risk of harm, or those transporting hazardous or noxious substances.

[hereinafter RUESTER], and in 57 AM. J. INT'L L. 268 (1962); the Vienna Convention on Civil Liability for Nuclear Damage, U.N.T.S., Reg. No. 1-16197, reprinted in 2 INT'L LEGAL MATERIALS 727 (1963); the Convention on Third Party Liability in the Field of Nuclear Energy Reg. No. A13706, reprinted in 12 Ruster 5972, and in 55 AM. J. INT'L L. 1082 (1960), Additional Protocol (Jan. 28, 1964); the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface (Oct. 7, 1952), 310 U.N.T.S. 181; and the Draft Articles for a Convention on Liability and Compensation in connection with the Carriage of Noxious and Hazardous Substances by Sea (1981), IMO doc. LEG-XXXXIV.2.71 [hereinafter IMO Draft Articles].

73. *Id.*

74. See IMO Draft Articles, *supra* note 72.

75. State practice has provided for limitations on compensation The provisions on limitation of compensation appear to have been carefully designed to fulfill two objectives: to protect industries from unlimited compensation which financially paralyzes their existence and discourages their future development, and to provide reasonable and fair compensation to those who suffer injuries as the result of the operation of those activities.

U.N. Survey, *supra* note 71, at 322. See *e.g.*, 1969 Convention on Third Party Liability, *supra* note 70, preamble.

Protection against potentially ruinous liability was also a basic rationale underlying the United States' Price-Anderson Act, which was enacted in 1957 to encourage the nuclear energy industry by limiting the liability of companies entering the field for damage caused by accidents. A U.S. legislator has said that the Act is based on the twin assumptions that nuclear power is “a central fact of American life” and that “nuclear accidents can happen.” *Remarks of Rep. Edward J. Markey (Democrat of Massachusetts)*, 9 Int'l Env't Rep. (BNA) at 408 (Nov. 12, 1986).

76. See *supra* note 72.

An example of such a regime is that established by the 1962 Brussels Convention on the Liability of Operators of Nuclear Ships,⁷⁷ which provides in Article II, paragraph 1, that such operators "shall be absolutely liable for any nuclear damage upon proof that such damage has been caused by a nuclear incident involving the nuclear fuel of, or radioactive products or waste produced in such ship." The Convention goes on to provide in Article III, paragraph 1, that "[t]he liability of the operator as regards one nuclear ship shall be limited to 1500 million francs⁷⁸ in respect of any one nuclear incident" Paragraph 2 of the same article provides that an "operator shall be required to maintain insurance, or other financial security covering his liability for nuclear damage, in such amount, of such type and in such terms as the licensing state⁷⁹ shall specify," and further requires the licensing state to

ensure the payment of claims for compensation for nuclear damage established against the operator by providing the necessary funds up to the limit laid down in paragraph 1 of [Article III] to the extent that the yield of the insurance or the financial security is inadequate to satisfy such claims.

Thus, it is up to the licensing state to determine the amount of insurance the operator must carry, but if the amount is less than 1500 million francs, that state is required to make up the difference.

Another example of a conventional regime providing for strict but limited liability is the 1969 International Convention on Civil Liability for Oil Pollution Damage.⁸⁰ Under that agreement, shipowners are strictly liable—subject to specified exceptions—for oil pollution damage occurring in the territory of a contracting state as a result of an oil spill.⁸¹ A shipowner may limit this liability, however, provided that the incident in question did not occur "as a result of the actual fault or privity of the owner,"⁸² by "constitut[ing] a fund for the total sum representing the limit of his liability [under Article V,

77. See *supra* note 70.

78. Article III(4) defines the term "franc" as a unit of account constituted of a certain weight and quality of gold.

79. Article I(2) defines "licensing State" as "the Contracting State which operates or which has authorized the operation of a nuclear ship under its flag."

80. 1969 Civil Liability Convention, *supra* note 70 at 3. See R. Quentin-Baxter, Fifth report on international liability for injurious consequences arising out of acts not prohibited by international law, U.N. Doc. A/CN.4/383 and Add. 1, [1984] 2 Y.B. INT'L LAW COMM'N (Part One) 155, 157.

81. 1969 Civil Liability Convention, *supra* note 70, art. III.

82. *Id.* art. V(2).

paragraph 1 of the Convention].”⁸³ This fund may be constituted through insurance or otherwise. The compensation regime of the 1969 Civil Liability Convention is supplemented by the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage,⁸⁴ which makes available compensation for oil pollution damage to the extent that the amount provided for under the 1969 Convention is inadequate.⁸⁵ The Fund is composed of contributions by persons receiving in contracting states a specified amount of oil that has been transported by sea.⁸⁶

These instruments provide models for the kinds of provisions that could be included in a contract between the exporter and the importing state.⁸⁷ Thus the contract could, under appropriate circumstances, provide for strict but limited liability and could require the exporter to provide some form of financial security to cover such liability. The agreement should also provide for exculpatory circumstances, such as armed hostilities, force majeure, or sabotage,⁸⁸ and might confine compensable harm to material damage.⁸⁹

The question of the circumstances under which such an approach would be appropriate is indeed a difficult one.⁹⁰ Situations can readily

83. *Id.* § 3. The limit of the shipowner's liability specified in Article V(1) is 2,000 francs per ton of the ship's gross tonnage, not to exceed 210 million francs.

84. Signed at Brussels on Dec. 18, 1971, INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION, U.N. Sales No. 1972.10.E, reprinted in 11 INT'L LEGAL MATERIALS 284 (1972) [hereinafter 1971 Fund Convention].

85. The 1971 Fund Convention also provides relief for shipowners who have complied with relevant requirements, by requiring the Fund to indemnify them for a portion of their liability under the 1969 Civil Liability Convention. *Id.* art. 5. See also arts. 2, 4, 10.

86. *Id.* art. 10.

87. Obviously, not all of the provisions mentioned in the preceding paragraphs would be relevant to such a contract. For example, the "safety net" provisions of the 1962 Convention on the Liability of Operators of Nuclear Ships, *supra* note 72, requiring the licensing state to make up any shortfall in compensation, and the provisions of the 1971 Fund Convention would not be suitable for adaptation to model contractual provisions. These provisions were noted, however, for the sake of completeness, and because they could provide inspiration for a conventional regime, to be discussed below.

88. Cf. the circumstances enumerated in art. 3(2) of the 1969 Civil Liability Convention, *supra* note 70. In this regard, it will be recalled that Union Carbide has alleged that sabotage by an employee of the Bhopal plant was responsible for the accident. "Carbide says employee sabotaged Bhopal plant," Sacramento Bee, 11 Aug. 1986, at 1, col. 1.

89. Such a limitation would make strict liability more acceptable to industry, and would thus help to minimize any deterrent effect that such liability would have on exporters' interest in going into a particular country. It would mean that such items of "damage" as pain and suffering and non-economic losses would not be recoverable. The same would be true of punitive damages. However, recovery for such items is either not allowed or is strictly limited in virtually all jurisdictions other than the United States in any event. Moreover, it seems clearly preferable to provide for an adequate recovery which is made available expeditiously than to hold out a promise of a lavish recovery which may be realized sometime years in the future. See *supra* note 75.

90. See, e.g., the discussions in Schwartz, *supra* note 29, at 25; Westbrook, *supra* note

be imagined in which the remoteness of the exporter's involvement would make it unjust to impose strict liability. On the other hand, a foreign exporter that is benefitting significantly from the production, sale, or use of the exported technology should not be permitted to deny all responsibility for harmful consequences (at least foreseeable ones) of the export transaction. Admittedly, whether it is able to do so will depend to a large extent upon the relative bargaining positions of the exporter and the importing country. This is a weakness of the contract approach and a corresponding strength of the convention approach.

Whether the exporter should be held strictly liable or liable at all in an individual case will depend upon a number of factors, including the type of hazardous technology involved (e.g., a product, process, plant, or a combination of these); the degree of hazard involved (which is itself a difficult question since even commonplace objects can cause harm if used improperly); the degree of the exporter's involvement, ownership, and control;⁹¹ the extent to which the exporter receives or has received benefits from the exported technology; and the extent of regulation and control of the technology, including any facilities, by the government of the importing country.⁹²

Of course, circumstances may lead the importing country to decide to assume full responsibility for accidents arising out of imported

29, at 321; and Rubin & Stanley, *A New Threat to the Multinational Enterprise?* J. Com. 47A (1985). Bruce A. Finzen, a lawyer for the government of India in the U.S. litigation put it rather bluntly: "we're saying it doesn't matter whether Carbide owned 50 percent of that plant or 1 percent or 100 percent . . . It was their operation. They set it in motion. They're responsible." *India Sues in U.S. Court over Bhopal*, Washington Post, April 9, 1985, at A1, A14.

Compare the directive enacted July 25, 1985 by the Council of the European Communities (EC) on the approximation of the laws, regulations, and administrative provisions of the Member States concerning liability for defective products 28 O.J. Eur. Comm. (No. L 210) 29 (1985). This directive is based on the principle of strict liability of the producer for damage caused by defective products. *Id.* art. 1. It provides for certain exculpatory circumstances that must be proven by the producer (*id.* art. 7), but does not impose a limit on damages recoverable for death or personal injury. Certain derogations by member states are allowed. See the discussion of the directive in Dielmann, *The European Community's Council Directive on Product Liability*, 20 INT'L LAW. 1391 (1986). For surveys of product liability law in six continental European and Nordic countries, as well as England and the United States, see ASSOCIATION EUROPEENE D'ETUDES JURIDIQUES ET FISCALES, *PRODUCT LIABILITY IN EUROPE* (1975).

91. This point is made in the paper by the chief outside counsel for Union Carbide in the Bhopal litigation, *supra* note 29. *But see* the comments of Bruce A. Finzen, a lawyer for the government of India in the U.S. litigation, quoted *supra* note 90.

92. *See, e.g.*, the discussion of the regulation and control by the Indian federal and state governments of the Union Carbide (India) plant at Bhopal in *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India*. 634 F. Supp. 842, 863-64 (S.D.N.Y. 1986), *aff'd in part sub nom.* Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp., 809 F.2d 195 (2d Cir. 1987) *reprinted in* 25 INT'L LEGAL MATERIALS at 796-97.

hazardous technology and, at least to the extent permitted by international human rights law,⁹³ it is certainly free to do so. But it seems more likely that, at least initially, the importing country would argue that it is not unfair to impose strict liability upon the exporter of hazardous technology whatever the circumstances. This argument could be based on the fact that the use of the technology, even as intended, entails a risk of harm that is not feasibly avoidable, coupled with the fact that the exporter benefits from the transaction (and will probably derive continuing benefits therefrom).⁹⁴ The financial security required under a regime of the type under consideration would become a business expense and would be reflected in the price of the technology. As such, it would be capable of being taken into account in advance by the exporter as a cost of doing business—a situation that contrasts sharply with the potentially ruinous consequences of astronomical judgments.⁹⁵

In fact, experience in analogous fields has shown that industry is willing to accept strict liability—and even to impose such liability on itself—in order to demonstrate an appreciation of the problem in question and to forestall the imposition of sterner measures by governments. For example, in 1971 thirty-eight oil companies concluded the Contract Regarding an Interim Settlement of Tanker Liability for Oil Pollution (CRISTAL) to supplement the 1969 Convention on Civil Liability for Oil Pollution Damage. CRISTAL, of which 701 oil companies are now members,⁹⁶ accepts the strict (but

93. The constraints imposed by international human rights law upon a state's freedom to endanger or sacrifice the health or safety of its citizens is discussed in D'AMATO & ENGEL, *STATE RESPONSIBILITY FOR THE EXPORTATION OF NUCLEAR POWER AND TECHNOLOGY* (1986) (unpublished at this writing).

94. Cf. the theory of "multinational enterprise liability" advanced by the government of India in the U.S. Bhopal litigation, discussed in note 29, *supra*. Further, as mentioned in note 29, *supra*, the complaint filed by the Union of India against Union Carbide in the U.S. Federal District Court for the Southern District of New York predicated Carbide's responsibility on, *inter alia*, strict liability for an ultrahazardous activity. [Pending Litigation], *Env'tl. L. Rep. (Env'tl. L. Inst.)* 65870 (Oct. 1985). In a recent case in which one person was killed and several hundred were hospitalized as a result of the collapse of a storage tank containing a toxic chemical, the Indian Supreme Court stated that "the top management of any company has an 'absolute' liability to ensure the safety of its facilities." 10 *Int'l Env't. Rep. (BNA)* 47 (Feb. 11, 1987). The Court's holding in this case, which is under appeal, is being used by lawyers for the Indian government in the Bhopal case. *Id.*

95. Cf. the OECD's "Polluter-Pays Principle," under which "the polluter should bear the expenses of carrying out . . . measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption." OECD, *Guiding Principles concerning International Economic Aspects of Environmental Policies*, §§ 2, 4 (recommendation adopted by the Council May 26, 1972), reprinted in OECD, *OECD AND THE ENVIRONMENT* 29 (1976).

96. 9 *Int'l Env't. Rep. (BNA)* 413 (Nov. 12, 1986).

limited) liability of the 1969 Convention, subject to the defenses contained in that convention. According to one study, "the actions of the oil industry [in concluding TOVALOP⁹⁷ and CRISTAL] were prompted by the hope that they would engender goodwill and that states would, therefore, refrain from unilateral action and follow the industry's precedent at the ensuing conference [on compensation for oil pollution damage]."⁹⁸

Another study has concluded that the cost to industry of providing compensation to cover accidental environmental damage "represents a *small fraction of the cost of measures to prevent environmental damage . . .*"⁹⁹ The fact that "compensation payments are of minor significance to industry"¹⁰⁰ suggests that setting up a scheme, perhaps involving insurance, to provide recompense for environmental disasters caused by hazardous activities should not cause industry particular difficulty from an economic point of view.¹⁰¹

As to whether it is appropriate to limit liability, experience has shown that in order to be broadly acceptable, strict liability regimes must provide for limitations on the amount of liability. This is true not only of the conventional regimes discussed above, but also of private compensation arrangements such as CRISTAL. It may be said that an approach which limits the compensation payable to victims is unjust. Every approach, however, has its price: The Bhopal litigation demonstrates that seeking maximum possible recovery through litigation means that victims will have to wait years before even learning whether their lawsuits will be successful.¹⁰² The ap-

97. See *supra* note 70.

98. M'GONIGLE, *supra* note 70, at 178. TOVALOP and CRISTAL have been criticized on the ground, *inter alia*, that the liability limits they set are too low. On October 21 and 22, 1986, oil companies and tanker owners agreed on higher oil pollution compensation limits under CRISTAL and TOVALOP. These "new voluntary limits are not as high as the latest amounts agreed to by IMO [International Maritime Organization] member governments, but they provide for a substantial increase in compensation The existing IMO conventions [the 1969 Civil Liability convention, *supra* note 70, and the 1971 Fund convention, *supra* note 85] were updated in 1984 but will take some years to enter into force." 9 Int'l Env't. Rep. (BNA) 412, 413 (Nov. 12, 1986). Incentive to ratify these agreements is diminished by the increase in coverage under the private arrangements. By the same token, acceptance by exporters of a strict but limited liability regime in contracts with importing countries could defuse international pressure for imposing expanded liability, as well as even higher standards of notification, supervision, and the like.

99. Smets, *Compensation of Environmental Damage*, *supra* note 6, at 9 (emphasis in original).

100. *Id.* at 10.

101. See *id.* at 9.

102. According to Professor Marc Galanter, the average duration of each of the 18 tort cases decided by the Supreme Court of India between 1950 and 1985, from the date of the

proach outlined above would ensure provision of adequate compensation to victims in an expeditious manner. This result would seem more "just" than one which holds out the hope of an astronomical recovery, but requires victims to bide their time for years before learning whether that hope will be realized. In short, justice delayed is justice denied.

If provision is to be made for a fund to satisfy claims, advance agreement should be reached upon the machinery that will be used to administer it. There is precedent under conventional regimes for the utilization for this purpose of a court "or other competent authority" of the state in which the accident occurred.¹⁰³ If this model is followed (which may not be appropriate in the present context, as discussed below), the Bhopal litigation teaches that time and resources would be saved by designating a court or other body in the importing state (the state where any accident would occur) as the competent institution.¹⁰⁴ The exporter should consent to the jurisdiction of the designated body for the limited purpose of implementing the contractual provisions concerning the compensation fund. Where the exporter is a governmental entity, it should waive any immunity from jurisdiction or enforcement that it may possess. Since we are now dealing with a contract between the exporter and the importing state and not a convention, jurisdiction of the courts of the importing state cannot be made exclusive: victims would be free to sue the exporter in the courts of its home country. This is a disadvantage of the contract approach.

It is questionable, however, whether an exporting company would generally be willing to submit in advance to the jurisdiction of the importing country's courts.¹⁰⁵ The exporter might be more inclined to agree to the use of a more neutral forum—again, for the limited

tort until the date of the final decision, was 17 and one-half years. "If applied to the Bhopal case, that would mean relief wouldn't reach the victims until the year 2002," and that assumes a favorable decision for the plaintiffs. Adler, *supra* note 6, at 71 (referring to Galanter's affidavit in the U.S. Bhopal litigation.)

103. See 1969 Civil Liability Convention, *supra* note 70, art. IX; *id.* art. V, §§ 3, 7. Cf. 1962 Convention on the Liability of Operators of Nuclear Ships, *supra* note 70, art. X(1), calling for actions to be brought before the courts of the licensing state or of the state in which nuclear damage was sustained.

104. Cf. 1969 Civil Liability Convention, *supra* note 70, art. IX.

105. The experience of Union Carbide with Indian courts and judges in the Bhopal litigation does little to dispel exporters' concerns that courts in the importing country might be biased. For example, one of the judges hearing the case was said to have been a plaintiff; and a judge expressed the view to a reporter that Union Carbide had ignored its "obligations" as a multinational company. See, e.g., 10 Int'l Env't. Rep. (BNA) 46 (Feb. 11, 1987).

purpose of implementing contractual compensation provisions—such as an ad hoc arbitral tribunal. The contract between the exporter and the importing country could provide for such matters as the venue of the arbitration, composition of the tribunal, rules to be utilized (e.g., those of the International Chamber of Commerce (ICC), the International Center for the Settlement of Investment Disputes (ICSID), or the United Nations Commission on International Trade Law (UNCITRAL)), and applicable law. An accident as serious as the one at Bhopal might justify the establishment of a joint commission by the states from which and to which the technology was exported, and this possibility could be provided for in the contract.

Regardless of the type of forum agreed upon, the body designated in the contract should be granted broad fact-finding authority so that victims can be identified rapidly and other pertinent facts can be determined impartially while evidence is fresh.

It will be noted that this approach avoids or minimizes a number of obstacles present in the litigation process. Thus, potential problems such as availability of affordable legal representation, court fees, and attorneys' fees would presumably be less serious than where the victims were forced to seek compensation directly from the exporter.

2. Provisions Applicable in the Event of Litigation

For various reasons, it may prove impossible for the exporter and the importing state to agree upon provisions along the lines of those described in the foregoing paragraphs. In that event, it would seem quite important that the agreement at minimum address problems that may arise if claims resulting from an accident are pursued through litigation. Thus, some advance agreement should be reached between the exporter and the importing country on such matters as the amenability of the exporter to jurisdiction; the applicable rules concerning the gathering of evidence; the possibility of establishing impartial fact-finding machinery; which party would be liable for costs and attorneys' fees; the applicable standard of liability; and enforcement of any judgment(s).

A provision conferring jurisdiction of local courts or another appropriate tribunal upon the exporter is necessary because of the uncertainties in this regard discussed earlier in this article.¹⁰⁶ The

106. See *supra* text accompanying notes 40-49. In the case of the Bhopal disaster, "[t]he

conditions mentioned in that discussion might not always be satisfied, and even if they were, they could be extremely difficult to prove—especially at a distance. This difficulty of proof would be magnified if the forum did not allow liberal pre-trial discovery, as most non-U.S. jurisdictions do not. It is therefore probable that the state into which the technology in question is to be imported would wish to require reasonable assurances that the exporting company would be amenable to the jurisdiction of an appropriate tribunal in the event of an accident. Such assurances could be required as a condition of allowing the technology to be imported, and could take the form of an advance agreement by the exporting company that it would submit to the jurisdiction of such a tribunal in the event of an accident. Of course, whether an agreement of this kind can be struck between the potential exporter and host country will depend upon the strength of the parties' respective bargaining positions.

An issue to be addressed in formulating an agreement by the exporter to submit to the jurisdiction of a claim-processing body is whether such consent would be applicable only in the case of suits by the government or also in the case of suits by injured individuals. From the standpoint of the exporter, a single suit by the government in its *parens patriae* capacity would seem much preferable to a number of suits by private claimants, at least if under the applicable law the government, by suing in such capacity, could represent the entire class of injured parties and preclude other suits by injured individuals.¹⁰⁷ The Bhopal case suggests that the exporter would probably attempt to condition its consent to jurisdiction upon the state's agreement not to sue the company in its home country. The political implications of such a lawsuit by the government would be greater than those associated with private actions, however, and might drive up an eventual settlement or judgment. Furthermore, it may not be appropriate for the government to act as plaintiff because, as has been claimed in the Bhopal case, the government itself may have been at least partially responsible for the accident or extent of the injuries.

Indians had been reluctant to sue Carbide in India in the first place because it was unclear whether the government could get personal jurisdiction over the U.S.-based Union Carbide Corporation—and not just over Union Carbide India, Ltd., which had insufficient assets to satisfy a substantial judgment.” Adler, *supra* note 6, at 72.

107. Cf. the Bhopal Gas Leak Disaster (Processing of Claims) Act, which came into force on March 18, 1985, reprinted in 25 INT'L LEGAL MATERIALS 884 (1986). Relevant provisions of the Act are described briefly *supra* note 4.

On the other hand, the exporter would be unlikely to consent to jurisdiction in actions by private individuals unless it could be given some assurance that claims against it would somehow be consolidated. Not only would consolidation spare the exporter from the burdens of defending numerous separate actions and attempting to settle with as many separate claimants, it would also expedite considerably the provision of relief to victims. Consolidation could be effected through procedural devices such as those available in the United States and utilized in the Bhopal litigation.¹⁰⁸

Another issue that might be covered by contractual provisions applicable in the event of litigation is discovery. It has already been seen in the context of the Bhopal litigation that U.S. and Indian law with respect to discovery vary dramatically. This would very likely be the case as to other technology exporting and importing countries as well. Since it would not seem just to allow the exporter to escape the more plaintiff-oriented rules of its own country, the preferred solution would seem to be for the parties to agree that, to the extent possible, the discovery rules most favorable to the victims should apply in any proceedings resulting from an accident.¹⁰⁹ It may be that such provisions would run afoul of the public policy of the importing country (if the proceedings took place there) or that special legislation would be needed for their implementation. However, there was no indication that either of these considerations was an obstacle when the U.S. trial court dismissed the Bhopal litigation in favor of an Indian forum on the condition, *inter alia*, that Union Carbide "be subject to discovery under the model of the United States Federal Rules of Civil Procedure" ¹¹⁰ In any event, these would be

108. See *In re Union Carbide Corp., Gas Plant Disaster at Bhopal, India*, 634 F.Supp. 842 (S.D.N.Y. 1986) *aff'd in part sub nom. Union Carbide Corp. Gas Plant Disaster v. Union Carbide*, 809 F.2d 195 (2d Cir. 1977), reprinted in 25 INT'L LEGAL MATERIALS at 772.

109. The "most favorable law" principle is a part of the private international law of the Federal Republic of Germany (Article 12 of the Introductory Law to the German Civil Code, EGBGB) as well as various other countries. See the comparative discussion of the laws of twelve different jurisdictions in A. REST, THE MORE FAVOURABLE LAW PRINCIPLE IN TRANSFRONTIER ENVIRONMENTAL LAW 58-68 (1980). See also, e.g., SOERGEL-KEGEL, 7 KOMMENTAR ZUM EGBGB 348, notes 1 *et seq.* (1970); G. KEGEL, INTERNATIONALES PRIVATRECHT 306 (4th ed. 1977); and M. KELLER & K. SIEHR, ALLGEMEINE LEHREN DES INTERNATIONALEL PRIVATRECHTS 358-59 (1986). The recent changes to the German legislation on private international law apparently left article 12 of the EGBGB, the source of the principle, unchanged. The principle applies, *inter alia*, in tort cases in which the wrongful conduct and resulting injury occur in different jurisdictions. In general, it provides that the applicable law is that of the two jurisdictions which is most favorable to the plaintiff.

110. *In re Union Carbide Corp.*, 634 F.Supp. at 867 reprinted in 25 INT'L LEGAL MATERIALS at 802. This aspect of the trial court's decision was reversed by the Second Circuit Court of

matters to be considered by the importing country in determining whether to seek such a provision.

Finally, the contract between the exporter and the importing country should include a commitment by both parties to honor the decisions of the tribunal agreed upon, where the proceedings in question were instituted in accordance with the terms of the contract. This was another of the conditions placed on the forum non conveniens dismissal of the U.S. Bhopal litigation by the trial court,¹¹¹ but it was struck down on appeal.¹¹² Without such an agreement, however, consent to jurisdiction might prove illusory. If a court in the importing country is the tribunal agreed upon, the obligation to abide by its judgments could be made subject to the kinds of conditions contained in the Uniform Foreign Money-Judgments Recognition Act of 1962.¹¹³

B. Convention

To be successful, a convention designed to ensure rapid provision of just compensation to victims of the types of accidents here under consideration would have to be widely ratified by both technology importing and exporting countries. (While the two are treated separately for discussion purposes, it is recognized that the same country will often be both an importer and exporter of hazardous technology.) The provisions of such a convention would therefore have to be

Appeals on Jan. 14, 1987 in 809 F.2d at 205 (2d Cir. 1987), *reprinted in* 10 Int'l Env't. Rep. (BNA) 45 (Feb. 11, 1987). The reason for the reversal was apparently that only Union Carbide, and not India, was required to abide by U.S. discovery rules: "Basic justice dictates that both sides be treated equally, with each having equal access to the evidence in the possession or under the control of the other." 10 Int'l Env't. Rep. (BNA) 45 (Feb. 11, 1987).

111. 25 INT'L LEGAL MATERIALS 802.

112. Union Carbide Corp. Gas Plant Disaster v. Union Carbide Corp., 809 F.2d 195 (2d Cir. 1987), *discussed in* 10 Int'l Env't Rep. (BNA) 45 (Feb. 2, 1987). The trial court judge's condition provided as follows: "Union Carbide shall agree to satisfy any judgment rendered by an Indian court, and if applicable, upheld by an appellate court in that country, where such judgment and affirmance comport with the minimal requirements of due process . . ." *In re Union Carbide Corp.*, 634 F.Supp. at 867 *reprinted in* 25 INT'L LEGAL MATERIALS at 802.

113. 13 U.L.A. 271 (Master ed. 1975). The Act has been adopted in Alaska, California, Illinois, Maryland, Massachusetts, Michigan, New York, Oklahoma, Texas, and Washington. Section 4 of the Act requires that foreign country judgments meet certain conditions in order to be entitled to recognition and enforcement. Among these conditions are that the judgment was rendered in a legal system providing impartial tribunals "or procedures compatible with the requirements of due process," and that the foreign court have had jurisdiction over the person of the defendant and the subject matter of the action. The judgment need not be recognized if, *inter alia*, it was obtained by fraud, or violates the public policy of the forum in which recognition is sought. *Id.*

carefully balanced to take into account the interests of each group of countries. Broad ratification would be important to the success of this approach since exporters in countries that did not become parties would be at a distinct advantage vis-à-vis exporters from states ratifying the convention.

The convention should, of course, cover many issues other than compensation of victims—in particular, those relating to prevention rather than to remedies.¹¹⁴ Problems in the former category are, however, beyond the scope of this article. Also outside this article's coverage is the crucial matter of defining the types of technology to which the convention will apply. There is experience with the compilation of similar lists that should provide useful models, however.¹¹⁵ This is another area in which international organizations active in this field could render valuable assistance. The types of technology covered by the convention would have significant bearing upon such issues as whether and under what circumstances the exporter should be held strictly liable. A definition of "hazardous technology" would also be useful to importing states in determining whether and under what conditions to allow the importation of certain products, processes, and the like.

Like the 1969 Liability and 1971 Fund conventions discussed above, the agreement here under discussion should anticipate the possibility that accidents will happen and should provide for the expeditious distribution of just compensation to victims. A convention would be the most appropriate vehicle for the establishment of a generally available mechanism—perhaps institutional—designed to assure the expeditious provision of monetary or other relief to the victims of an accident caused by exported hazardous technology. Another advantage of the convention approach, alluded to above, is that its success does not depend upon the bargaining power of the importing country vis-à-vis that of the exporter.

114. See generally McGarity, *Bhopal and the Export of Hazardous Technologies*, 20 *TEX. INT'L L.J.* 333 (1985), discussing such problems as "industrial flight," the "circle of poison," and the question of whether technology-exporting countries should apply the same standards to their corporations' foreign plants that they apply to those at home.

115. See, e.g., the list of hazardous wastes whose transfrontier movement will be controlled, agreed upon by the Waste Management Policy Group of the OECD, Oct. 8-10 1986, reported in *Int'l Env't Rep.* (BNA) 399 (Nov. 12, 1986); the annexes to the EEC's "Seveso Directive", which attempt to define chemicals which, in certain quantities, are considered to be major industrial hazards; and the Consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or not approved by Governments, U.N. Doc. DIESA/WP/1.

It might also be appropriate to envision another, less ambitious conventional regime, whose objective would be to take some of the twists and turns out of the litigation process with a view to expediting the provision of relief to victims. This section will outline with a very broad brush the kinds of remedial provisions these two types of conventional regimes might contain.

1. *Regime to Provide Compensation Outside the Litigation Process*

Many of the provisions discussed in the preceding section, relating to model contractual clauses, would also be desirable features of a conventional regime. For ease of reference, these will simply be listed here: Strict liability of exporters of hazardous technology, under appropriate circumstances¹¹⁶ and subject to appropriate exculpatory provisions; limitation of the monetary extent of liability; a requirement that exporters (perhaps jointly with the importing country under appropriate circumstances) provide some form of financial security to cover potential liability;¹¹⁷ the establishment or identification of an impartial body in the importing country that would be responsible for identifying victims, determining the cause(s) of the accident, and administering the payment of claims; and a requirement that exporters submit to the jurisdiction of such a body for the limited purpose of implementing the provisions concerning the compensation fund.¹¹⁸ These provisions could be adapted from conventions such as those discussed in relation to the model contract.¹¹⁹

The convention should be drafted in such a way as to obligate the states parties not to allow the importation of hazardous technology unless the exporter complies fully with the convention's terms. Thus, if state A, a party to the convention, allowed the importation of hazardous technology by company X without requiring that company

116. See the discussion of some of the considerations that would be relevant to determining the appropriateness of strict liability in text accompanying *supra* note 52.

117. As to this requirement, as well as that below concerning the submission of the exporter to the jurisdiction of the importing country's courts, the convention could provide that contracting parties exporting hazardous technology are obligated to require their companies to comply with such requirements as a condition of allowing the technology to be exported.

118. Such submission could be provided for in the manner described in the preceding footnote. It should include a waiver of immunity where the exporter is a governmental entity.

119. *E.g.*, the 1962 Brussels Convention on the Liability of Operators of Nuclear Ships, *supra* note 72; the 1969 International Convention on Civil Liability for Oil Pollution Damage, *supra* note 70, and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, *supra* note 84.

to, e.g., provide financial security for the compensation of potential accident victims, this would constitute a breach of the treaty in respect of other states' parties.

The convention should also confer exclusive jurisdiction over accident claims upon the body in the importing country, such as a court or an ad hoc arbitral tribunal, which has been designated to handle the claims. Such a provision, which would not be possible in a model contract, would preclude victims from suing in the exporter's home country (providing, of course, that that country was a party to the convention). While this might be challenged on due process or other grounds, there is precedent for such a provision under, e.g., the 1969 Civil Liability Convention, discussed above.¹²⁰ Furthermore, since it is designed to expedite the provision of compensation, rather than to deprive victims of it, such a provision should not be objectionable.

Disasters of great magnitude, such as Bhopal, may call for the establishment of extraordinary tribunals. In such situations, the exporter's home state and the importing country could, by special agreement, set up a joint claims settlement tribunal that would determine the amount of compensation to which individual victims were entitled.¹²¹ The possibility that such special tribunals might be needed in the case of mass disasters could also be provided for in the convention here under discussion.

As a safeguard measure, and in particular where a court is the body designated to handle claims, the convention should provide for enforcement in the exporter's home state of any judgment rendered pursuant to its terms in an importing state (assuming again that both states are parties to the convention). Such a provision could be modeled on Article X of the 1969 Liability Convention.

Provision should also be made in the convention for a supplementary accident victims' compensation fund ("Fund"), perhaps modeled along the lines of that established by the 1971 Fund Convention.¹²² The Fund could thus be available to provide compensation to the extent that the moneys supplied by the exporter's insurance, bond, or other financial security were inadequate.¹²³ A portion of it could

120. See text accompanying notes 80-86, *supra*.

121. Such a proposal for dealing with the claims arising out of the Bhopal disaster has been made by Professor Daniel Magraw, as described *supra* note 8.

122. See *supra* note 84.

123. Like the 1971 Fund Convention, the present instrument could also provide relief for exporters who have complied with relevant requirements, by requiring the Fund to indemnify them for a portion of their liability under the convention.

also be set aside for victims (including the unborn) whose injuries are not immediately apparent or are unforeseeably and dramatically worsened over time. The Fund could be composed of contributions by, e.g., exporters headquartered in contracting states; persons receiving in contracting states a specified amount of the product of the hazardous technology that was exported; and perhaps the contracting states themselves. States could finance such contributions in part through a tax or charge on the hazardous technology that they permitted to be exported or imported. This might provide an additional incentive for states to exercise care in allowing hazardous technology to enter or leave their borders.

Another approach to making up a shortfall in compensation is that taken by the 1962 Convention on the Liability of Operators of Nuclear Ships.¹²⁴ It will be recalled that that Convention leaves it up to the state licensing a nuclear ship to specify the amount, type, and terms of the required insurance or other financial security, but obligates that state to make up the difference between the amount of coverage it requires and the ceiling provided for by the Convention. This approach might make more sense where the activity in question is normally owned and operated by the states themselves—as is the case with nuclear ships. It seems doubtful under present conditions that technology exporting states would be ready to back private exporters in the way envisaged by the 1962 Convention.

2. *Regime to Eliminate Obstacles in the Litigation Process*

The establishment of a separate conventional regime to deal with problems related to the litigation process would also be desirable. Because it is *post hoc* in nature, this is not the preferred method of dealing with the problem of facilitating redress. Nonetheless, it is doubtful that all of the many existing arrangements involving hazardous technology that has already been exported could be subjected retroactively to a regime such as that outlined in Section One, above (although this would no doubt be possible as contracts expire and in relation to ongoing arrangements).

A conventional regime addressing obstacles in the litigation process should address many of the same kinds of issues as those mentioned above in relation to model contractual provisions applicable in the event of litigation. It need not and should not be strictly confined

124. See *supra* note 72.

to harmonization of procedural rules, however, since this would leave several major problems unaddressed. Thus, some advance agreement should be reached between states importing and exporting hazardous technology on such matters as those identified in the following paragraphs.

First, the convention should designate the state in which victims may bring actions.¹²⁵ For the reasons given in Judge Keenan's opinion in the U.S. Bhopal litigation, the forum designated should probably be the importing country, which would also be the place of the accident. Such a provision would require implementing legislation in order to ensure that any actions which plaintiffs sought to bring against the exporter in its home state would be dismissed in favor of the importing country.

Second, a procedure for the consolidation of claims should be established. The convention could set up such a procedure or could simply incorporate by reference a consolidation procedure established by the laws of a particular state.

Third, the convention should specify the applicable rules concerning the gathering of evidence. Here, the convention could set up its own regime or allow the court to avail itself on motion and at its discretion of the system most favorable to the plaintiff(s), as between that prevailing in the importing or the exporting country. In order to facilitate access to evidence and witnesses located abroad, the convention should require or strongly encourage parties to ratify the Hague conventions on the taking of evidence and service of process.¹²⁶

Fourth, the parties should seek to identify or provide for the establishment of impartial fact-finding machinery. As described earlier in this article,¹²⁷ the establishment of basic facts has been problematic and productive of delays in the Bhopal case. From such basic problems as identifying victims to more complex matters like determining what happened at the plant, Bhopal has demonstrated what

125. Cf. Art. IX of the 1969 Civil Liability Convention, *supra* note 70, which designates the state in which pollution damage has occurred as the sole state in which actions for compensation may be brought. Cf. also note 50, *supra*, concerning the power of a government to extinguish claims: legislation which merely required, in effect, a transfer to another forum—much like that effected pursuant to a conditional dismissal for reasons of forum non conveniens—would seem far less objectionable.

126. See the Hague Convention on the Taking of Evidence Abroad, *supra* note 46; and the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters of Nov. 15, 1965, entered into force Feb. 10, 1969, 20 U.S.T. 361, T.I.A.S. 6638, 658 U.N.T.S. 163.

127. See *supra* notes 53-56 and accompanying text.

an enormous and difficult task fact-finding can be with regard to mass disasters. There is also the question of whether a party who is alleged to bear at least a share of the responsibility for an accident—here the Indian government—should be involved in the fact-finding process. But clearly the court cannot shoulder this burden, and the parties can only do it at great cost and with much loss of time. Perhaps an existing international organization (preferably non-governmental) such as the Red Cross could be asked to take on the responsibility of the identification of victims in cases approaching the magnitude of Bhopal. And perhaps it would not be too far fetched to envisage the establishment of an International Hazardous Technology Agency, very roughly analogous to the International Atomic Energy Agency (IAEA),¹²⁸ which would be competent, among other things,¹²⁹ to investigate the causes of disasters involving exported hazardous technology.¹³⁰

Fifth, the convention should specify which party will be liable for costs and attorneys' fees. The objective here should be to avoid deterring victims from seeking compensation through what might prove to be the only avenue available: litigation. If plaintiffs are faced with an *ad valorem* court fee such as that reportedly imposed in India,¹³¹ they may not get past the court's threshold. Parties to the convention should therefore be called upon to eliminate such fees in the type of case under consideration, insofar as possible. With regard to attorneys' fees, a "loser-pays-all" rule would doubtless deter some plaintiffs with legitimate claims. This suggests that each party should bear its own attorneys' fees. Perhaps some form of assistance to indigent plaintiffs could be provided through a fund to be set up under the convention, discussed below.

128. See Statute of the International Atomic Energy Agency, 8 U.S.T. 1093, TIAS 3873, 276 U.N.T.S. 3 (entered into force July 29, 1957). It goes without saying that it is not here suggested that the "hazardous technology agency" be concerned with safeguards against the diversion of hazardous material, as is the IAEA in respect of fissionable material; such an agency could however, like the IAEA, promote cooperation among importing and exporting states in the use and socially beneficial application of, in this case, hazardous technology.

129. See *supra* note 128. Such an agency could also make generally available information concerning regulations imposed in exporting states upon the production and use of hazardous technology, as well as such matters as safety regulations in and around plants producing or using such technology.

130. It is recognized that a state in which such a disaster occurred might not be willing to grant the agency free rein in conducting its investigation. Cf. the IAEA's efforts to investigate the circumstances and effects of the accident at Chernobyl. But even a modicum of investigatory authority in a neutral body would be of great assistance in expediting the provision of compensation to victims, and would probably help to "keep the parties honest" in the conduct of their own investigations.

131. See *supra* note 19 and accompanying text.

Sixth, the applicable standard of liability should be determined. As discussed in several places in this article, agreement on a standard of liability, and if possible, on strict liability, would save a great deal of time, money, and judicial resources. Otherwise, it is not only time that will be lost in deciding which state's law and what standard of liability to apply. If a fault-based standard is employed, problems of proof may be insurmountable. If parties do agree upon strict liability, however, some limitation should be placed upon the monetary extent of liability for reasons discussed above.

Seventh, provision should be made for enforcement of judgment(s). The convention should provide that any judgment rendered pursuant to its provisions is to be recognized and enforceable in any other contracting state, subject to the usual qualifications.¹³²

Finally, the convention could provide for the establishment of a fund for meeting the legal and court costs of indigent plaintiffs (or court costs could simply be waived in the case of mass disasters).

C. Model Law

A model law would probably be a less effective approach to expediting relief than those already discussed because of the possibility that states would modify a model law in the process of enacting it, thus reducing the extent of harmonization it could effect. There would also be less collective international pressure upon individual states to enact such a measure than would be present at an international conference for the conclusion of a treaty, as well as more parochial political pressure to be responsive to local concerns and interests. Furthermore, the incentive to "hold out" by not enacting the model law would be significant since states that did not enact the law would enjoy certain advantages over those that did. This is particularly true of importing states, but as already noted, many states are both importers and exporters of hazardous technology.

Nonetheless, some relief-expediting measures are well suited to implementation through uniform legislation, and one or more of the

132. See, e.g., the 1969 Civil Liability Convention, *supra* note 70, art. X(1) which requires that the judgment "no longer [be] subject to ordinary forms of review" in the state of rendition, that it not have been obtained by fraud, and that the defendant have been given reasonable notice and a fair opportunity to present his case. The article contains another desirable provision in paragraph 2, namely, that the formalities for enforcing judgments in the state in which enforcement is sought "shall not permit the merits of the case to be reopened."

international bodies active in this field¹³³ could propose such a measure for adoption by states importing hazardous technology, as well as a separate one suitable for adoption by states exporting such technology (as noted above, the two categories of states are treated separately for analytical purposes, even though the same state may be both an importer and an exporter). Illustrative provisions of such model laws, most of which are adapted from like provisions in the instruments already discussed, follow.

1. Model Law for States Exporting Hazardous Technology

Model legislation designed for adoption by exporting states should address the following points.

First, exclusive jurisdiction should be conferred upon a designated tribunal. As discussed earlier, it is essential that time not be wasted litigating the questions of jurisdiction and the appropriate forum. The latter question alone consumed over seventeen months in the Bhopal litigation. The advantages of holding the proceedings at the situs of the accident have been adverted to above; while important evidence and witnesses may be located at the exporter's headquarters,¹³⁴ it would usually be more efficient to transport these to the scene of the accident than *vice versa*. Judge Keenan so found in the U.S. Bhopal litigation.¹³⁵

Second, provision should be made for enforcement of judgments. This provision could parallel the one discussed above in connection with the conventional regime concerning litigation-related obstacles to relief.¹³⁶

Third, cooperation between judicial authorities should be provided for. The model law designed for the exporting country could usefully provide for such forms of judicial assistance as service of process and taking of evidence in the case of litigation abroad concerning accidents caused by hazardous technology exported from the country in question. These provisions could be modelled upon those of the Hague conventions on the taking of evidence and service of process.¹³⁷

133. See *supra* note 65.

134. See, e.g., the allegations of the plaintiffs (including the government of India) in the U.S. Bhopal litigation, discussed by Judge Keenan in his opinion, *In re Union Carbide Corp.*, 634 F.Supp. at 847; 25 INT'L LEGAL MATERIALS at 783, et seq.

135. *Id.*

136. See *supra* text accompanying notes 58-59.

137. See the Hague Convention on the Taking of Evidence Abroad, *supra* note 46; The Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents, *supra* note 126.

In the case of legislation, however, there would obviously be no automatic reciprocal assistance provided for in importing countries, as would be the case with a treaty regime (to the extent such countries were parties).

2. *Model Law for States Importing Hazardous Technology*

First, such a law should provide for the consolidation of claims. In addition to the features of such a provision already discussed,¹³⁸ a suggestion by Professor Galanter is worthy of consideration: The model law could provide for “a single consolidated proceeding to determine common questions (for example, liability) and special tribunals to make individualized determinations of damages”¹³⁹

Second, provision should be made for strict liability with a ceiling on recoverable damages, along the lines already discussed.¹⁴⁰

Third, the law should require that exporters provide some appropriate form of financial security to cover potential liability. This requirement, discussed above in relation to model contractual provisions, should be imposed upon the exporter at entry, *i.e.*, when the importing country authorizes the importation of the hazardous technology.

Model legislation designed for importing countries could contain many other kinds of provisions directed toward streamlining the provision of compensation, some of which have been mentioned in connection with the discussion of other instruments. For example, a fund for the compensation—supplemental or otherwise—of victims of accidents involving hazardous technology could be established by the importing country as a part of its general budget. Complex legislation was introduced in the United States “to provide prompt, exclusive, and equitable compensation, as a substitute for inadequate tort remedies, for disabilities or deaths resulting from occupational exposure to asbestos, and for other purposes.”¹⁴¹ This legislation, which died when the asbestos cases were settled, would have established a compensation fund composed of assessments levied upon defendants in asbestos cases, and supplemented by a trust fund to which the government would contribute appropriated moneys. While

138. See the discussion *supra* under part II(B)(2)(b).

139. Galanter, *supra* note 15, at 294.

140. See the discussion of these points *supra* parts II(A), (B).

141. See *supra* note 6.

they are thus somewhat unique, these bills might serve as a partial model. A system analogous to that of workers' compensation might also be envisaged, with the government or insurance carrier being subrogated to the victim's rights against the party at fault.

The law could further provide for legal representation of victims, and for the compensation of lawyers. Professor Galanter has suggested that the latter problem could be addressed by "devising a revolving fund that would pay for legal services and be replenished from recoveries."¹⁴² It could further provide for the establishment or identification of an impartial body in the importing country that would be responsible for identifying victims, determining the cause(s) of the accident, and administering the payment of claims. And it could require that exporters submit to the jurisdiction of such a body for the limited purpose of implementing the provisions concerning the compensation fund.¹⁴³ These provisions could be adapted from conventions such as those discussed in relation to the model contract.¹⁴⁴

CONCLUSION

It is crucial that action be taken to streamline the provision of compensation to victims of mass disasters, and in particular, accidents involving exported hazardous technology. Ideally, such action should be taken in a concerted manner, and on the international, state-to-state level. It is perhaps more realistic to expect that such reforms will be effected, if at all, through agreements between exporters of hazardous technology and importing countries. Countries importing hazardous technology probably enjoy sufficient bargaining leverage to demand certain assurances from exporting companies as a condition of permitting the importation of the hazardous technology. These assurances should include the provision of some form of no-fault financial security to ensure the availability of at least some compensation for potential accident victims, agreement to submit to

142. Galanter, *supra* note 15, at 294. Such a solution would apparently entail some of the elements of contingent fees—*i.e.*, there would have to be recoveries (*i.e.*, plaintiffs would have to prevail), and part of the recovery would go to the lawyers. While these features may be objectionable in some countries on policy grounds as discussed earlier, the main concern should be the provision of legal representation for victims. See also the solution proposed by Magraw, *supra* note 8: "Attorneys' fees would be limited to 10% of the amount actually received by each claimant." *Id.* at 846.

143. See the above discussion of similar provisions in relation to a conventional regime.

144. These conventions are referred to *supra* in the text accompanying notes 75-88.

the authority of a local court or other competent body in the importing country, and other stipulations to implement those mentioned. Ultimately, however, if the benefits of hazardous technology, which can be great, are to be distributed to countries throughout the world, a widely accepted international regime that ensures compensation for its victims, yet does not destroy or discourage its producers, seems essential.