

Strict Liability versus Negligence in *Indiana Harbor*

Alan O. Sykes[†]

In January of 1979, a railroad tank car containing the chemical acrylonitrile started leaking at a rail yard in south suburban Chicago. The chemical was manufactured by American Cyanamid Co (Cyanamid) in Louisiana. Cyanamid had leased the tank car, filled it with acrylonitrile, and delivered it to the Missouri Pacific Railroad for transport to the Chicago suburbs. The leak occurred while the car was on the property of the plaintiff, Indiana Harbor Belt Railroad Co (IHB), a local switching line. The car was to be joined with a Conrail train for travel to a Cyanamid plant on the East Coast.

Acrylonitrile is flammable, highly toxic, and possibly carcinogenic. Accordingly, an evacuation of the neighboring area was ordered when the leak was detected. The leak was eventually contained without fire or personal injury, but four thousand gallons had been discharged and the Illinois Department of Environmental Protection ordered IHB to clean up the site at a cost of just under \$1 million. IHB then filed an action against Cyanamid in federal court seeking to recover the cleanup costs. The first count of the complaint alleged that Cyanamid was negligent in its maintenance of the leased tank car. The second count of the complaint alleged that Cyanamid was strictly liable for the accident, on the grounds that the shipment of acrylonitrile through an urban area was an abnormally dangerous activity. The district court granted summary judgment for IHB on the second count, holding that “Illinois law would impose strict liability for injuries resulting from the transportation of acrylonitrile in bulk through a Chicago residential area.”¹ In so holding, the court relied heavily on the factors contained in § 520 of the Restatement (Second) of Torts. The court also held that IHB had not assumed the risk of Cyanamid’s abnormally dangerous activity.²

Cyanamid’s appeal to the Seventh Circuit resulted in a reversal of summary judgment and a ruling that Cyanamid had not engaged in an abnormally dangerous activity as a matter of law. The opinion in *Indi-*

[†] Professor of Law, Stanford University.

¹ *Indiana Harbor Belt Railroad Co v American Cyanamid Co*, 662 F Supp 635, 644 (ND Ill 1987).

² *Id* at 646.

*ana Harbor Belt Railroad Co v American Cyanamid Co*³ was authored by Judge Richard Posner, who offered his own interpretation of the factors in Restatement § 520 and their application to the facts at hand. Judge Posner's opinion is now standard teaching fare in torts courses around the country, and I have been assigning it in my own classes at Chicago and Stanford ever since its first appearance in Richard Epstein's prominent casebook.⁴

The outcome in the case is a sensible one and is broadly consistent with the resistance in modern American courts to the expansion of strict liability.⁵ Nevertheless, notwithstanding my enormous admiration for Richard Posner as a scholar and as a judge, my classroom treatment of the opinion in *Indiana Harbor* has always been rather critical. The problem lies not so much with Judge Posner's thinking but with the questionable logic of the Restatement to which his opinion is faithful. Modern economic learning casts significant doubt on the utility of the Restatement's criteria for the assignment of strict liability. Judge Posner's opinion also makes little of the facts that the case involved the rule of liability within a contractual chain and that IHB was engaged in the same "activity" as Cyanamid. The strict liability count might have been more comfortably dismissed on the grounds that IHB assumed the risk.

Part I lays out Judge Posner's analysis in some detail along with the analysis of the district court. Part II reviews modern economic learning on the choice between strict liability and negligence. Part III then critiques Judge Posner's analysis of the case in light of the lessons in Part II.

I. RESTATEMENT § 520 IN THE DISTRICT COURT AND THE SEVENTH CIRCUIT

The accident in *Indiana Harbor* was governed by Illinois law, and both the district judge and Judge Posner proceeded on the assumption that the Illinois Supreme Court would follow the Restatement (Second) in deciding whether an activity was "abnormally dangerous" and thus subject to strict liability. Both courts further agreed that the issue was one of law rather than fact. Their disagreement arose over the proper interpretation of the Restatement factors and the application of each factor to the facts of the case.

³ 916 F2d 1174 (7th Cir 1990).

⁴ See Richard A. Epstein, *Cases and Materials on Torts* 599–605 (Aspen 8th ed 2004).

⁵ See Kenneth S. Abraham, *Rylands v. Fletcher: Tort Law's Conscience*, in Robert L. Rabin and Stephen D. Sugarman, eds, *Torts Stories* 207, 219–25 (West 2003); James A. Henderson, *Why Negligence Dominates Tort*, 50 *UCLA L Rev* 377, 383 (2002).

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Section 520 of the Restatement (Second) of Torts provides:

In determining whether an activity is abnormally dangerous, the following factors are to be considered:

- (a) existence of a high degree of risk of some harm to the person, land or chattels of others;
- (b) likelihood that the harm that results from it will be great;
- (c) inability to eliminate the risk by the exercise of reasonable care;
- (d) extent to which the activity is not a matter of common usage;
- (e) inappropriateness of the activity to the place where it is carried on; and
- (f) extent to which its value to the community is outweighed by its dangerous attributes.⁶

The district court began its analysis by suggesting that the most important factor on the list is factor (e), concerning the inappropriateness of the activity to the location where the harm arises. It suggested that “inappropriate” does not mean “negligent” or “wrong.” Instead, “it refers to an activity which, because of the nature of the locality in which it is carried on, is likely to cause substantially greater harm if an injury were to occur than it would cause somewhere else if a similar injury were to occur.”⁷ The Court emphasized that IHB’s rail yard adjoined a residential area, that some three thousand residents were forced to evacuate after the leak occurred, and that the leak had contaminated the residential water supply. On this basis it found the location of the activity “inappropriate.”

Regarding factors (a) through (c), Cyanamid argued that the shipment of acrylonitrile is generally safe given the large quantities that are transported every year without incident. The district court disagreed, however, suggesting that the risk of harm due to a spill during the transportation of a hazardous chemical such as acrylonitrile cannot be completely eliminated through the exercise of reasonable care, and that the potential harm in the event of a spill is great. As for factor (d), the issue of common usage, the court rejected Cyanamid’s suggestion that the shipment of acrylonitrile is a matter of common usage because it occurs on an almost daily basis. Instead, the court suggested that this factor captures “not . . . the frequency with which

⁶ Restatement (Second) of Torts § 520 (1965).

⁷ *Indiana Harbor Belt Railroad Co v American Cyanamid Co*, 662 F Supp 635, 641 (ND Ill 1987).

the activity occurs, but . . . the number of people who take part in it.” Because “[v]ery few persons ship 20,000 gallons of acrylonitrile by tank car. . . [s]uch a shipment is not a matter of common usage.”⁸

Finally, regarding factor (f), the value of the activity to the community, the court rejected Cyanamid’s argument that the myriad of industrial uses for acrylonitrile confirm that shipment of the chemical has substantial societal value. Instead, “this factor is merely a different application of the principles underlying the ‘appropriateness to the area’ and ‘common usage’ factors.”⁹ The court suggested that the “value to the community” factor allows courts to consider the importance of the activity to the local economy and to eschew strict liability when the activity appears particularly vital.¹⁰ The value of shipping acrylonitrile through the Chicago suburbs did not outweigh the risk posed to those suburbs in the view of the court.

Judge Posner’s view of the case was quite different. He began with a review of the Restatement factors, offering his own views as to their logic. To illustrate their application, he drew on the old New York case of *Guille v Swan*,¹¹ involving a hot air balloonist who crashed in a vegetable garden in New York City. The vegetables were then trampled by a crowd seeking to help the balloonist, and the grower recovered the loss from the balloonist on a theory of strict liability. Judge Posner remarked:

Guille is a paradigmatic case for strict liability. (a) The risk (probability) of harm was great, and (b) the harm that would ensue if the risk materialized could be, although luckily was not, great (the balloonist could have crashed into the crowd rather than into the vegetables). The confluence of these two factors established the urgency of seeking to prevent such accidents. (c) Yet such accidents could not be prevented by the exercise of due care; the technology of care in ballooning was insufficiently developed. (d) The activity was not a matter of common usage, so there was no presumption that it was a highly valuable activity despite its unavoidable riskiness. (e) The activity was inappropriate to the place in which it took place—densely populated New York City. The risk of serious harm to others (other than the balloonist himself, that is) could have been reduced by shifting the activity to the sparsely inhabited areas that surrounded the city in those days. (f) Reinforcing (d), the value to the community

⁸ *Id.* at 643.

⁹ *Id.*

¹⁰ *Id.*

¹¹ 19 Johns 381 (NY Sup Ct 1822).

of the activity of recreational ballooning did not appear to be great enough to offset its unavoidable risks.

These are, of course, the six factors in § 520. They are related to each other in that each is a different facet of a common quest for a proper legal regime to govern accidents that negligence liability cannot adequately control. The interrelations might be more perspicuous if the six factors were reordered. One might for example start with (c), inability to eliminate the risk of accident by the exercise of due care. The baseline common law regime of tort liability is negligence. When it is a workable regime, because the hazards of an activity can be avoided by being careful (which is to say, nonnegligent), there is no need to switch to strict liability. Sometimes, however, a particular type of accident cannot be prevented by taking care but can be avoided, or its consequences minimized, by shifting the activity in which the accident occurs to another locale, where the risk or harm of an accident will be less ((e)), or by reducing the scale of the activity in order to minimize the number of accidents caused by it ((f)). By making the actor strictly liable—by denying him in other words an excuse based on his inability to avoid accidents by being more careful—we give him an incentive, missing in a negligence regime, to experiment with methods of preventing accidents that involve not greater exertions of care, assumed to be futile, but instead relocating, changing, or reducing (perhaps to the vanishing point) the activity giving rise to the accident. The greater the risk of an accident ((a)) and the costs of an accident if one occurs ((b)), the more we want the actor to consider the possibility of making accident-reducing activity changes; the stronger, therefore, is the case for strict liability. Finally, if an activity is extremely common ((d)), like driving an automobile, it is unlikely either that its hazards are perceived as great or that there is no technology of care available to minimize them; so the case for strict liability is weakened.¹²

Judge Posner then addressed the specifics of transporting acrylonitrile by rail, and noted that many chemicals shipped by rail are classified as comparably hazardous or more hazardous. With respect to the precedents involving accidents with various hazardous chemicals, he noted a number of cases in which companies involved in transportation or storage had been subjected to strict liability, along with some contrary decisions. He distinguished the cases imposing

¹² *Indiana Harbor*, 916 F2d at 1177 (citations omitted).

strict liability primarily on the grounds that they had involved transportation or storage rather than mere shipment. As a consequence, he found “little help from precedent” and proceeded “to apply section 520 to the acrylonitrile problem from the ground up.”¹³

To this end, he argued that the court had no reason “for believing that a negligence regime is not perfectly adequate to remedy and deter, at reasonable cost, the accidental spillage of acrylonitrile from rail cars.”¹⁴ The accident in *Indiana Harbor* did not cause an explosion and destroy the possible evidence of negligence as had the explosion of a gasoline tanker in the well known Washington case of *Siegler v Kuhlman*,¹⁵ which imposed strict liability for the transportation of gasoline. Likewise, the accident was not attributable to dangerous properties of acrylonitrile, such as corrosiveness, that might result in spills despite the exercise of due care. Rather, “[the leak] was caused by carelessness,” whether that of the tank car owner, Cyanamid, the Missouri Pacific Railroad, or even perhaps the plaintiff IHB.¹⁶ “[I]f a tank car is carefully maintained the danger of a spill of acrylonitrile is negligible. If this is right, there is no compelling reason to move to a regime of strict liability.”¹⁷ This analysis pertains, of course, to factors (a) through (c) under Restatement § 520.

Regarding the other factors in Restatement § 520, the opinion devotes considerable attention to the district court’s suggestion that the transportation of acrylonitrile is inappropriate to the urban area in which the spill occurred (factor (e)). Judge Posner rejected this analysis given the “hub-and-spoke” structure of the American railway system, in which all of the “hubs” are in metropolitan areas. As a consequence, it is not clear that shipment of chemicals can readily be done in a manner that avoids metropolitan regions. Further, he suggests that “rerouting is no panacea. Often it will increase the length of the journey, or compel the use of poorer track, or both. When this happens, the probability of an accident is increased . . . so the expected accident cost . . . may rise.”¹⁸

Judge Posner also made much of the fact that Cyanamid was not the transporter of acrylonitrile, but the shipper. IHB did not suggest that the manufacture of the chemical was abnormally dangerous, only that its transportation through metropolitan areas was. The question thus arose whether IHB had picked the wrong defendant in seeking

¹³ Id at 1179.

¹⁴ Id.

¹⁵ 81 Wash 2d 448, 502 P2d 1181 (1972).

¹⁶ *Indiana Harbor*, 916 F2d at 1179.

¹⁷ Id.

¹⁸ Id at 1180.

strict liability. One reason why the plaintiff may have chosen to pursue Cyanamid rather than the railroad on the strict liability theory lies in precedent that refuses to impose strict liability on common carriers for the shipment of hazardous goods because they have a legal obligation to accept those goods.¹⁹ Even if the transporter is thereby insulated from strict liability, however, Judge Posner was not persuaded that the liability should shift to shippers. Although a shipper using the rail system can designate the route in the bill of lading, “is it realistic to suppose that shippers will become students of railroading in order to lay out the safest route by which to ship their goods?”²⁰ Judge Posner had to concede that Cyanamid was more involved in the transportation process than many other shippers in that it leased the tank car, maintained it, and loaded it. But neither IHB nor the district court relied on these special facts in seeking or imposing strict liability on Cyanamid.

Judge Posner’s opinion does not address the other two Restatement factors (factor (d), common usage, and factor (f), value to the community) as applied to the transportation of acrylonitrile, except in a passing reference to whether strict liability was needed to create an incentive “to relocate the activity to nonpopulated areas, or to reduce the scale of the activity, or to switch to transporting acrylonitrile by road rather than by rail.”²¹ Here, he concluded:

It is no more realistic to propose to reroute the shipment of all hazardous materials around Chicago than it is to propose the relocation of homes adjacent to the Blue Island switching yard to more distant suburbs. It may be less realistic. Brutal though it may seem to say it, the inappropriate use to which land is being put in the Blue Island yard and neighborhood may be, not the transportation of hazardous chemicals, but residential living. The analogy is to building your home between the runways at O’Hare.²²

This passage touches on the “activity level” issue, a prominent concern in the economic literature to which I will return. Judge Posner’s reference to the risks of residential living near the switching yard raises but does not resolve the question whether the individuals who are exposed to the dangers associated with the transport of hazardous chemicals, rather than those who are engaged in such transportation, are better candidates for an adjustment of their activity level.

¹⁹ See Restatement (Second) of Torts § 521.

²⁰ *Indiana Harbor*, 916 F2d at 1180.

²¹ *Id.* at 1181.

²² *Id.*

II. THE SIMPLE ECONOMICS OF STRICT LIABILITY VERSUS NEGLIGENCE

As in many of his other opinions, Judge Posner's analysis in *Indiana Harbor* is mindful of the economic policy considerations in play. Indeed, he stresses that the Restatement's approach to the question of when to impose strict liability is mainly "allocative rather than distributive. . . . [T]he emphasis is on picking a liability regime (negligence or strict liability) that will control the particular class of accidents in question most effectively."²³ This Part briefly reviews the academic learning about the choice between strict liability and negligence and its allocative consequences.

It is useful to begin by defining each system. "Negligence" imposes liability for harms that are caused by the failure of an actor to exercise "due care" or "reasonable care." Jury instructions in negligence trials typically ask whether the defendant (or the plaintiff, if the issue is contributory negligence) behaved as would a "reasonably careful person under the circumstances," or something to that effect.²⁴ Litigants are free to offer the jury more guidance as to how a "reasonably careful person" would behave, and may point to various considerations such as customary behavior or more broadly to the costs and benefits of care. Judge Learned Hand famously suggested in *United States v Carroll Towing*²⁵ that the inquiry into the reasonableness of care ought to rest on a balancing of costs and benefits, captured by the likelihood of accidents, their anticipated severity, and the burden involved in measures to avoid them.²⁶ The suggestion that "negligence" amounts to a failure to exercise available cost-effective precautions was also the central theme in one of Judge Posner's most prominent early academic papers.²⁷ Section 3 of the Restatement (Third) of Torts likewise embraces the balancing of costs and benefits in its definition of negligence.²⁸

"Strict liability," by contrast, imposes liability for harms that the defendant's activity "causes." The plaintiff need not demonstrate that

²³ Id at 1181–82.

²⁴ See, for example, Judicial Council of California, *Civil Jury Instructions: Forms*, CACI 401 (West 2006).

²⁵ 159 F2d 169 (2d Cir 1947).

²⁶ See id at 173 (establishing the $B < PL$ formula, under which liability results if the burden of precaution is less than the product of the accident's magnitude and probability of occurring).

²⁷ See Richard A. Posner, *A Theory of Negligence*, 1 J Legal Stud 29 (1972) (attempting to "formulate" and "test" a theory of "the social function of the negligence concept and of the fault system of accident liability that is built upon it").

²⁸ See Restatement (Third) of Torts: Liability for Physical Harm § 3 (Tentative Draft No 1, 2001) ("Insofar as this section identifies primary factors for ascertaining negligence, it can be said to suggest a 'risk-benefit test' for negligence.").

the defendant behaved carelessly. In cases involving “abnormally dangerous activities” (the pocket of doctrine at issue in *Indiana Harbor*), liability is generally limited to the “kind of harm, the possibility of which makes the activity abnormally dangerous.”²⁹ Damages are in principle the same as under negligence, measured by the amount of money that will compensate the plaintiff for the harm suffered.

Economically oriented commentators through the years have identified a number of important similarities and differences between the two liability regimes. In general, it is difficult to say which rule is superior from an economic standpoint purely as a matter of theory, and the empirical information necessary to determine which rule is superior across important classes of cases is often unavailable. A brief summary of the key similarities and differences is as follows.³⁰

First, both liability regimes are in principle capable of inducing cost-effective precautionary behavior by injurers with respect to all of the precautions that a negligence rule will scrutinize. This equivalence requires that negligence be administered so that a failure to exercise cost-effective precautions results in a finding of negligence, and that damages in each regime be equal to the social value of the harm caused by the actor. Under these assumptions, strict liability results in cost-effective precautions because rational actors who bear the costs of the harms that they cause will take all cost-effective measures that are available to economize on that liability. Actors who will be found negligent for failure to exercise cost-effective precautions will also prefer to take such precautions than to suffer the expected liability costs of not taking them (which are greater on the assumption that the precautions are cost-effective).

Second, negligence law will not induce cost-effective measures to avoid accidents to the degree that it is incapable of scrutinizing certain risk-reducing measures after an accident occurs. Valuable precautions may exist that cannot be observed by courts (for instance, did the driver glance into the rear view mirror before changing lanes?). One type of precaution that courts may systematically omit to assess under negligence has come to be known as the actor’s “activity level” (a term coined by Steven Shavell³¹). Consider, for example, a chemical plant that poses a danger to neighboring activities. Negligence law may be fairly good at examining whether the plant is designed and maintained

²⁹ Restatement (Second) of Torts § 519(2).

³⁰ I will not footnote each point, but the key ideas here may be found in William M. Landes and Richard A. Posner, *The Economic Structure of Tort Law* 54–84 (Harvard 1987), and Steven Shavell, *Economic Analysis of Accident Law* 5–46 (Harvard 1987). Those sources also review a number of details and subtleties that I omit in the interest of brevity.

³¹ See Steven Shavell, *Strict Liability versus Negligence*, 9 J Legal Stud 1, 2 (1980).

in a cost-effective fashion. But another way to reduce risk may be to reduce the scale of the plant (the activity level), yet courts may be unable to assess whether the scale of the plant is excessive in a social sense. To the degree that negligence law cannot effectively scrutinize aspects of an injurer's behavior that affect expected harm, such as the injurer's activity level, an argument arises for strict liability, *other things being equal*. Strict liability imposes on actors the costs of harms that they cause without regard to negligence, and they will be led to take all available measures to economize cost-effectively on those harms.

Third, and related, negligence law may be administered imperfectly. To the degree that actors expect the standard of care to deviate from what is cost effective under a rule of negligence due to errors or biases in setting the standard of care, they may be led to take too much or too little care. Strict liability avoids the distortions of behavior that can result from anticipated bias or error in the administration of the negligence standard.

Fourth, it would be a serious mistake to conclude on the basis of the second and third points above that strict liability is in general superior to negligence from an economic standpoint. The reason is that the imperfections of negligence law cannot in general be avoided by a rule of strict liability, but instead resurface under strict liability as distortions in the behavior of accident victims. As Ronald Coase made clear long ago, there is an important sense in which all accidents are "caused" by *both* injurers and victims.³² Before a farmer's crop can be damaged by wandering cattle from a neighboring ranch, a rancher must have some cattle that may wander and a farmer must plant a crop next door. Strict liability on the rancher may induce the rancher to take all cost-effective measures to reduce harm, including some that negligence law would fail to police. But if the farmer is fully compensated for any losses, he lacks any incentive to take precautions himself that may reduce losses, such as changing his crop mix, relocating some of it, or altering the scale of his farm.

Some of these problems can be addressed by adding a contributory negligence defense to the strict liability rule. Interestingly, classical tort doctrine did not allow that defense. According to § 524 of the Restatement (Second) of Torts, "mere" contributory negligence short of a knowing and unreasonable assumption of risk is not an impediment to full recovery by the plaintiff. The plaintiff's contributory negligence afforded a defense only if it could be characterized as an assumption of risk or as a basis for assigning all causal responsibility for the accident to the plaintiff. In recent years, however, with the advent

³² See generally Ronald Coase, *The Problem of Social Cost*, 3 J L & Econ 1 (1960).

of comparative fault, a number of courts have allowed defendants to put forward the plaintiff's contributory negligence as a basis for apportioning the loss. Likewise, the draft Restatement (Third) takes the position in § 25 that contributory negligence should reduce the plaintiff's recovery in accordance with the "share of responsibility assigned to the plaintiff."

The introduction of contributory negligence as a defense to a strict liability action abates some of the incentive problems that would arise if victims could recover their losses irrespective of their carelessness. But all of the problems attributable to imperfections in a negligence rule will still arise on the victim side—victim precautions that negligence does not police adequately, including changes in the scale of victim activity, may be distorted, and behavior may be further distorted by the problems of bias and error in the administration of the contributory negligence defense. In the end, all that can be said as a theoretical matter about the choice between the two regimes is that strict liability tends to be better when it is more important to cure the imperfections attributable to negligence law in the behavior of injurers, while negligence tends to be better when it is more important to cure the imperfections attributable to negligence law in the behavior of victims.³³

Finally, nothing has been said to this point about the litigation and other administrative costs of the two regimes. Here, too, theory alone is inconclusive. Strict liability may avoid the need to examine the injurer's precautions for their reasonableness, but an inquiry into the victim's behavior may still be needed (assuming that the law will permit it). Further, whenever strict liability rests on a consideration of factors such as those in Restatement § 520, the costs of assessing the significance of each factor come into play. Lastly, to the degree that strict liability enhances the chances of recovery by victims, it may be expected to lead to more lawsuits. The net impact of a shift from neg-

³³ Moreover, for some classes of accidents, the notion that strict liability and negligence are meaningful alternatives is questionable. A good example is a collision between two automobiles on the highway. Although we might say that each driver "caused" the harm to the other and require a series of potentially offsetting liability payments by each to the other, the lion's share of the loss might then fall on the driver who behaved with all appropriate care while the driver who carelessly precipitated the accident received substantial compensation. For obvious reasons, that result would create poor incentives for accident avoidance, and thus an examination of the care exercised by each driver prior to the accident seems a superior way to assign causal responsibility. Another way to put this point is to say that strict liability for highway collisions seems absurd unless it is accompanied by an effective contributory negligence defense. And when each driver can assert that defense against the other, an inquiry into the negligence of each driver is inevitable. For a broader argument that strict liability poses issues that are not "adjudicable" in various contexts, see Henderson, 50 *UCLA L Rev* at 393–97 (cited in note 5).

ligence to strict liability on administrative costs thus turns on empirical issues about which information may be sparse.

III. CRITICAL ANALYSIS OF *INDIANA HARBOR*

Judge Posner's opinion in *Indiana Harbor* makes a noble effort to explain and defend, on "allocative" grounds, his reliance on the factors contained in Restatement § 520. The analysis of those factors is ultimately unconvincing, however, and indeed the Restatement factors are at best of marginal relevance to a sound economic choice between strict liability and negligence. Judge Posner's analysis also makes nothing of the fact that the plaintiff in the case, IHB, was part of a contractual chain leading to the defendant Cyanamid and agreed to the transportation of hazardous chemicals such as acrylonitrile through its switching yard. In my view, more attention should have been paid to the assumption of risk defense in the case, which was addressed by the district court but not by the Seventh Circuit.

A. Judge Posner's Analysis of the Restatement Factors

1. Factors (a) through (c).

Slightly paraphrased, the first three factors of Restatement § 520 are: (a) a high degree of risk of harm; (b) a likelihood that the harm will be great; and (c) an inability to eliminate the risk through the exercise of reasonable care. Collectively, these three factors imply that the expected harm from the activity at issue is substantial even if the injurer exercises due care.

Judge Posner's discussion of these factors in *Indiana Harbor* makes essentially two points about them, one of which is correct but incomplete, and another that is somewhat misleading. Starting with the former, recall Judge Posner's conclusion that the risks associated with the transportation of acrylonitrile are "negligible" when proper care is exercised, a proposition at odds with the conclusion of the district court.³⁴ He then argued that when due care eliminates the danger of accidents "there is no compelling reason to move to a regime of strict liability."³⁵ This point is a fair one—if accidents do not happen when due care is exercised the choice between strict liability and negligence should make little difference because a properly functioning negligence rule should operate to deter all accidents. There is no "compelling reason" for strict liability but, of course, there is no com-

³⁴ See *Indiana Harbor*, 916 F2d at 1179.

³⁵ *Id.*

elling objection to it either. The allocative effects of the two rules will be the same as a first approximation.

Even then, the choice between the two rules may not be a matter of indifference in all cases, as the facts of *Indiana Harbor* illustrate. Judge Posner's analysis implies that the acrylonitrile spill was almost certainly the result of negligence. Was IHB then wasting its time pursuing strict liability instead of moving for summary judgment on its negligence count, based either on direct proof of negligence or perhaps the doctrine of *res ipsa loquitur*? The result of the case on remand makes clear that it was not. IHB's motion for summary judgment on the negligence issue was denied on remand after Cyanamid contended that the leak may have been occasioned by damage due to debris on the railroad track or by vandalism and offered some supporting evidence.³⁶ Even if Judge Posner was right that *someone* was negligent with respect to the acrylonitrile spill, an issue arose as to *who* was responsible for that negligence. When a plaintiff has been injured by an instrumentality that has been under the control of multiple parties and it is difficult to know which of those parties is at fault for the accident, the plaintiff may be unable to recover under negligence rules. This observation by itself does not make a case for strict liability, but it raises a range of concerns that Judge Posner's opinion does not address.

As for the second and somewhat misleading point, Judge Posner did not simply argue that there is no "compelling reason" for strict liability when due care eliminates the risk of accidents. He argued as well that if a substantial risk of harm remains after due care has been exercised, that fact weighs *in favor* of strict liability. As noted in Part I, he reasoned that when substantial risk remains despite due care, strict liability becomes more desirable as a way to induce "the actor to consider the possibility of making accident-reducing activity changes."³⁷

This claim is somewhat misleading for the reasons given in Part II. When substantial expected harm remains despite the exercise of all measures that the law deems necessary for due care, the choice between strict liability and negligence matters to a greater degree because it determines whether injurers or victims will bear the large residuum of expected harm. But to say that the choice *matters* importantly is insufficient to establish that it is better to place the residual loss on injurers, for to do so will in general diminish the incentive of

³⁶ See *Indiana Harbor Co v American Cyanamid Co*, 1991 US Dist LEXIS 13983 (ND Ill 1991).

³⁷ *Indiana Harbor*, 916 F2d at 1177.

victims to make “accident-reducing activity changes,” in Judge Posner’s phrasing.³⁸

Judge Posner acknowledges this problem later in the opinion, where he notes that rerouting shipments of hazardous chemicals around metropolitan areas may be less desirable than reducing the amount of residential living near railroad yards where chemical spills may occur. He perhaps also acknowledges the problem implicitly when he singles out *Guille* as a “paradigmatic case for strict liability.”³⁹ It is difficult to imagine that plaintiffs such as the one in *Guille*, a New York City resident whose vegetable garden was trampled after a hot-air balloonist landed in the middle of it, would alter their behavior in response to strict liability given the trivial risk of losses due to stray hot-air balloons in the city. To the degree that strict liability in a case like *Guille* induces any “accident-reducing activity changes,” they are likely to be made solely by injurers and one can indeed make an argument for the superiority of strict liability.

Because Judge Posner is evidently aware of the victim incentives issue, his opinion in *Indiana Harbor* might have done more to set the record straight on their importance. It is simply not the case that when a substantial expected harm exists despite the exercise of due care, the case for strict liability becomes stronger without regard to its likely effects on the behavior of accident victims.

But it is difficult to imagine a court going much farther than simply framing the issue properly given the facts of *Indiana Harbor* and the difficult empirical questions that they raise. Judge Posner may have been right that rerouting hazardous chemical shipments around urban areas would be difficult and might even exacerbate the expected harm. He may also have been right to conjecture that negligence creates some useful incentives for potential victims to relocate. But it seems equally plausible that the marginal impact of strict liability on the behavior of shippers and transporters would be more valuable than the marginal impact of negligence on the behavior of victims. Any judgment on the balance of costs and benefits here would rest on pure speculation. What perhaps can be said fairly is that no advantage to strict liability is clearly apparent. If the “default rule” in American tort law is negligence, the facts of *Indiana Harbor* offer little basis to deviate from it.

³⁸ Id.

³⁹ Id.

2. Factor (e).

The appropriateness of the activity to its location was a central factor in the analysis of the district court. Judge Posner's account of the logic of this factor suggests that strict liability will encourage injurers to reconsider the location of their activities in a way that negligence law will not, perhaps by relocating dangerous activities to less populated areas. An important difficulty with this reasoning is that it presupposes an absence of careful inquiry into the location of activities under a negligence standard. In fact, however, nothing prevents a court from inquiring whether a defendant's activity has been negligently located. A second and related difficulty with factor (e) is that to determine whether or not an activity's location is "inappropriate"—a finding necessary for a court to apply factor (e)—the court must undertake an analysis that looks very much like a negligence analysis. If courts can ascertain whether the location is "inappropriate," why would they be unable to determine whether it is "negligent?"

Indeed, Judge Posner's own analysis in *Indiana Harbor* highlights the faulty premise behind factor (e). In his discussion of *Guille*, he argues rather persuasively that New York City is not a good place for hot-air balloonists to learn their hobby. And in the course of deciding that it does not make sense to reroute the shipment of hazardous chemicals around urban areas, Judge Posner takes note of the hub-and-spoke nature of the railway system and the fact that lengthy and circuitous routing might be necessary to avoid urban hubs, during which the risk of accident might be greater. In effect, he rules that the shipment of hazardous chemicals through urban hubs is not negligent, but characterizes the finding as a reason why strict liability is unnecessary. It would make more sense to say that factor (e) is irrelevant to the choice between strict liability and negligence and that its inclusion in the Restatement is simply a mistake.⁴⁰

I am not the first to point out the dubious relevance of factor (e) to the choice between strict liability and negligence. Indeed, the drafters of the Restatement (Third) omit it from the new § 20 on abnormally dangerous activities, suggesting in commentary that at most the location of an activity is a factor to be considered in assessing the

⁴⁰ To be sure, if courts were more likely to err in assessing the reasonableness of an activity's location than in assessing some other type of precaution, the location issue might have some bearing on the choice between strict liability and negligence because strict liability could avert the need for the error-prone inquiry into the reasonableness of the injurer's location. But as always the problem is symmetrical—if courts cannot competently assess the reasonableness of the defendant's location, they will have equal difficulty assessing the reasonableness of the victim's location. Further, whatever flaws inhere in scrutinizing location under a negligence rule are likely to surface as well in assessing factor (e).

magnitude of the risk created by the activity and the question whether it is an activity in common usage.⁴¹ Judge Posner might have done more to debunk the Restatement (Second)'s reliance on this factor as well.

3. Factor (d).

As noted, the “common usage” factor was considered by the district court in *Indiana Harbor*, which concluded that the shipment of acrylonitrile was not “common” because relatively few entities engaged in it. Judge Posner did not address this finding in his opinion, although he did address the general rationale for the common usage factor in two passages. During his discussion of the ballooning accident in *Guille*, Judge Posner remarked that “[t]he activity was not a matter of common usage, so there was no presumption that it was a highly valuable activity.”⁴² Later, he suggested that “if an activity is extremely common ((d)), like driving an automobile, it is unlikely either that its hazards are perceived as great or that there is no technology of care available to minimize them; so the case for strict liability is weakened.”⁴³ One might restate these claims as follows: If an activity is uncommon, it is more likely to be either an undesirable activity or an activity with an excessive scale of operation. And in the reverse case where an activity is common, it is unlikely to be very dangerous, at least after available cost-effective precautions have been taken. Both claims are flawed insofar as they purport to supply a basis for strict liability.

The suggestion that “uncommon” activities are more likely to be undesirable or excessive in their scale is an empirical claim that has no apparent foundation. The “uncommon” activities that have become the subject of strict liability in prior cases, such as reservoir construction⁴⁴ and blasting during construction projects,⁴⁵ can have enormous social importance in many contexts. And if the district court was right to say that “uncommon” activities are those in which relatively few entities engage, it is even more difficult to understand how this criterion serves to identify activities that are undesirable or excessive in scale. It may be true that few entities manufacture and ship acrylonitrile, just as few entities manufacture commercial jet aircraft or jet fighters, and just as very few entities produce most goods that are un-

⁴¹ See Restatement (Third) of Torts § 20, comment k.

⁴² *Indiana Harbor*, 916 F2d at 1177.

⁴³ *Id.*

⁴⁴ The classic case of course is *Rylands v Fletcher*, LR 3 HL 330 (1868), affg LR 1 Ex 265 (1866) (establishing that if a person brings onto his land anything “which, if it should escape, may cause damage to his neighbor” he is responsible “however careful he may have been,” should it escape).

⁴⁵ See, for example, *Spano v Perini*, 25 NY2d 11, 250 NE 2d 31, 32 (1969).

der patent, but so what? It is just as plausible to say that society suffers from an excessive amount of driving, an extraordinarily common activity, because people hop into their cars for trivial tasks without proper regard to the risks to the environment and to others,⁴⁶ as to say that an activity enjoys no presumption of value simply because it is “uncommon.” If important features of the law are to rest on empirical premises, it is important that those premises in turn rest on something more than speculation.

Judge Posner’s second claim—that “common” activities are less dangerous than uncommon activities when due care is exercised—also seems purely speculative. And even if this claim were correct as an empirical matter, it suffers from the problems noted above in the discussion of factors (a) through (c). The mere fact that an activity is relatively dangerous after all “due care” has been exercised is *not* in itself an argument for strict liability. Victim behavior must also be considered before any such conclusion can be reached.

4. Factor (f).

The last factor in the Restatement (Second) asks whether an activity’s “value to the community” is outweighed by its “dangerous attributes.” The district court suggested that this factor was intended to allow a court to refrain from imposing strict liability when it might do great damage to the local economy, and that otherwise it was largely a refrain of factors (d) and (e). To the degree that the district court is correct in that regard, the foregoing critique of factors (d) and (e) is immediately pertinent.

Judge Posner did not comment on the district court’s analysis of factor (f). He did refer to factor (f) briefly in his discussion of *Guille*, where he suggested that the “value to the community of recreational ballooning did not appear to be great enough to offset its unavoidable risks.”⁴⁷ Later he suggested that factor (f) has to do with “reducing the scale of the activity.”⁴⁸ The first reference seems to suggest that factor (f) can support an inquiry into whether it is negligent to be engaged in the activity at all. The second reference, albeit rather cryptic, suggests that strict liability is useful in its ability to induce injurers to make marginal adjustments in their scale of activity, harking back to the activity level discussion in Part II. For reasons that may now sound

⁴⁶ On the negative externality created by driving and the suggestion that the amount of driving is considerably too high, see Aaron Edlin and Pinar Karaca Mandic, *The Accident Externality from Driving*, 114 J Pol Econ 931, 948–50 (2006).

⁴⁷ *Indiana Harbor*, 916 F2d at 1177.

⁴⁸ *Id.*

rather familiar, neither of these points offers a sound basis for attention to factor (f) in deciding whether to impose strict liability.

To the extent that factor (f) asks for a comparison between the value of an activity to the community and its “dangerous attributes,” it seemingly asks for a balancing of the costs and benefits of the activity, at least in its given location. Such analysis is simply negligence analysis, with the relevant “precaution” being the discontinuation or relocation of the activity in question. Nothing prevents courts from engaging in such analysis under a rule of negligence. As noted, Judge Posner seems to engage in such analysis himself in his discussion of *Guille* and in his analysis of why it is reasonable to ship hazardous chemicals through metropolitan rail hubs. To the degree that courts are capable of conducting such analysis well, a rule of negligence is perfectly adequate and there is no reason to shift to strict liability. And if courts will do a poor job in analyzing such questions, they will likely do an equally poor job of applying factor (f) (as well as factor (e)) of the Restatement (Second). The notion that these factors should be central considerations in deciding whether to impose strict liability, therefore, is silly. The drafters of the Restatement (Third) appear to have recognized the problem: like factor (e), concerning the appropriateness of the activity’s location, factor (f) on its net value to the community is omitted from the current draft of § 20 of the Restatement (Third).⁴⁹

To the degree that factor (f) has some broader connection to the activity level issue, as Judge Posner briefly suggests, we return full circle to the economic discussion in Part II. Victims as well as injurers may have an excessive scale of activity. Strict liability ameliorates the problem on the injurer’s side but exacerbates it on the victim’s side. In general, we have no basis to know which option is worse, although cases may arise in which we have some rough intuitions (such as *Guille*). It is difficult to see how a consideration of factor (f) will in any way help to identify the class of cases in which strict liability is superior.

B. The Assumption of Risk Issue

IHB operated a switching yard at which it handled rail cars in transit from around the country. It knew that the rail car at issue in the case contained acrylonitrile, and indeed was broadly aware that various hazardous chemicals would pass through its facility. Section 523 of the Restatement (Second) provides that assumption of risk is a defense to an action seeking recovery for harm caused by an abnormally dangerous activity. In light of IHB’s awareness that it was handling a

⁴⁹ See Restatement (Third) of Torts § 20, comment k (listing criticisms of factor (f) that led to its elimination as part of the move to the two-criteria standard for strict liability).

rail car containing acrylonitrile, in light of the fact that it was thus a willing participant in the activity that it urged was subject to strict liability (transportation of acrylonitrile through an urban area), and in light of the additional fact that it was compensated for participating in that activity, why not hold that IHB assumed the risk?

This issue was raised in the district court, but the court ruled for IHB. In so doing, the court made three points. First, it suggested that IHB should not be deemed to have assumed the risk because it was a common carrier and “probably” had no choice but to handle shipments of hazardous chemicals—hence, the assumption of risk was not “voluntary.” Second, it stated that the assumption of risk defense applies only if the plaintiff “knowingly and unreasonably” assumed the risk. Third, it insisted that IHB at most assumed the risk of a properly maintained rail car containing acrylonitrile, yet the evidence suggested that the rail car that leaked had various problems with a valve.⁵⁰

After reversing summary judgment for IHB on the strict liability issue, Judge Posner declined to rule on the assumption of risk question.⁵¹ A strong argument can be made that the district court erred on this issue, however, and that a ruling for Cyanamid on assumption of risk affords a simpler way to dispose of the case than the questionable analysis of the Restatement factors to which Judge Posner devoted most of his opinion.

The three legal points made by the district court in rejecting the assumption of risk defense are rather unpersuasive. First, even if it is true that IHB had an obligation to handle hazardous chemicals as a common carrier, it is also true that it had an opportunity to charge an appropriate price for its services. When an actor is aware of the risk and is compensated for bearing it, the court’s suggestion that the assumption of risk is not “voluntary” rings hollow. Second, the suggestion that the assumption of risk must be “unreasonable” before it becomes a defense appears mistaken. No such requirement is found in § 523 of the Restatement (Second). The cases cited by the court were all product liability cases in which the holding was that assumption of risk did not apply unless the plaintiff was aware of the product defect, not cases involving abnormally dangerous activities. The district court’s third point—that IHB did not assume the risk of a defective or negligently maintained rail car—makes sense if the defense is asserted in a negligence action. But if the defendant is to be held liable without fault because the activity is “abnormally dangerous,” why should the details of how the danger materialized defeat assumption of risk by a

⁵⁰ *Indiana Harbor*, 662 F Supp at 646–47.

⁵¹ *Indiana Harbor*, 916 F2d at 1182–83.

plaintiff who knowingly subjects itself to the abnormal danger? As the Restatement commentary puts it:

It is not necessary that [the plaintiff] know or understand all of the causes or elements of the risk inseparable from the activity. It is enough that he knows there is an abnormal risk of serious harm, to which those who take part in the activity or come within its range will be subjected.⁵²

More fundamentally, the district court ignored Cyanamid's core argument. IHB was itself engaged in the very activity—transportation of acrylonitrile through an urban area—that it claimed was abnormally dangerous! On what basis should another party, also engaged in the activity, be made to bear the entirety of the loss? Under IHB's abnormally dangerous activity theory, Cyanamid, Missouri-Pacific, IHB, and Conrail were all in effect "joint tortfeasors" when the accident occurred. The cleanup costs were imposed on IHB, and so at most IHB should have an action for contribution against the other "tortfeasors" engaged in the abnormally dangerous activity. When IHB instead tries to shift the entire loss to Cyanamid by suggesting that Cyanamid alone was engaged in the abnormally dangerous activity, a ruling that IHB assumed the risk as a matter of law seems entirely appropriate.

The economics of the situation cast further doubt on IHB's position in the case. IHB was part of a contractual network involving the shipper (Cyanamid), the initial rail carrier (Missouri Pacific), the switching yard (IHB), and the East Coast carrier (Conrail). All of the railroad firms involved in the transportation process have an opportunity to charge for their services, and in particular to include in their prices a charge for the liability risks that they bear. In a well-functioning market, it may then make little or no difference whether the parties to this contractual chain are liable to each other for "negligence" should something go wrong or whether they are "strictly liable." In particular, if the liability rules are clear and the risks are known, prices will adjust so that the liability rule is a matter of indifference.⁵³ If shippers must bear a greater portion of the costs of accidents, rail transportation prices will decline in an offsetting fashion, and vice versa.

Of course, the market will not function in this ideal fashion if information about risks is poor. This observation affords the conventional rationale for the existence of tort obligations within contractual

⁵² Restatement (Second) of Torts § 523, comment c.

⁵³ See Shavell, *Economic Analysis of Accident Law* at ch 3 (cited in note 30) (analyzing liability and deterrence when the injurer is a firm).

relationships. Economic analysis then suggests that losses be placed on the party with superior information so that prices can reflect it. Actors are likely to have better information about their own exercise of care, and one can argue from this observation that actors ought to bear the costs of their own negligence. But what about the costs of accidents that arise when actors have exercised due care, that is, the residuum of harm that a choice between strict liability and negligence will allocate? Sometimes, injurers will have better information about these risks, as in the case of product manufacturing defects that arise despite the exercise of due care in the manufacturing process.⁵⁴ But it is hardly obvious where the information advantage lies in a case like *Indiana Harbor*. Conceivably, Cyanamid knows more about the risk of non-negligent leaks during the transportation of the chemicals that it manufactures, but it is equally plausible that rail carriers or the operators of rail yards have better information. Absent any clear presumption in this regard, there is no apparent reason for imposing strict liability on any particular party. There is little reason for the courts to become involved in shifting losses around absent proof of negligence. The assumption of risk defense will leave them where they initially fall.

CONCLUSION

As suggested in the introduction to this essay, the outcome in *Indiana Harbor* is a sensible one. The difficulty with the opinion lies in the route that it takes to its conclusion. Any decision that relies on the factors in § 520 of the Restatement (Second) (or, by the way, the more abbreviated list of factors in the draft § 20 of the Restatement (Third)) is doomed to intellectual failure. One cannot fault Judge Posner for applying what he believed to be Illinois law, of course, and perhaps the opinion was artful in purporting to apply the Restatement factors faithfully despite their uselessness while nevertheless reaching the right conclusion. In my view, an intellectually cleaner approach to the case might have been to accept Cyanamid's assumption of risk defense as a matter of law. Alternatively, Judge Posner might have deemed the Restatement factors simply irrelevant to a case against Cyanamid as the manufacturer rather than the transporter. Having chosen to engage the Restatement as he did, however, Judge Posner might have done much more to clarify its (in)utility as a basis for strict liability and to nudge the law in another direction.

⁵⁴ See Landes and Posner, *The Economic Structure of Tort Law* at ch 10 (cited in note 30) (analyzing the efficiency of various liability rules in the context of products liability and industrial-accident law).