

## California Western Law Review

---

Volume 34  
Number 2 *Conceiving the Lawyer as Creative  
Problem Solver*

Article 15

---

1998

### Minimizing Product Liability Exposure: Practical Solutions for Manufacturers

Sidney K. Kanazawa, J.D.

Dan R. Gallipeau, Ph.D.

Follow this and additional works at: <https://scholarlycommons.law.cwsl.edu/cwlr>

---

#### Recommended Citation

Kanazawa,, Sidney K. J.D. and Gallipeau,, Dan R. Ph.D. (1998) "Minimizing Product Liability Exposure: Practical Solutions for Manufacturers," *California Western Law Review*: Vol. 34 : No. 2 , Article 15.  
Available at: <https://scholarlycommons.law.cwsl.edu/cwlr/vol34/iss2/15>

This Article is brought to you for free and open access by CWSL Scholarly Commons. It has been accepted for inclusion in California Western Law Review by an authorized editor of CWSL Scholarly Commons. For more information, please contact [alm@cwsl.edu](mailto:alm@cwsl.edu).

## MINIMIZING PRODUCT LIABILITY EXPOSURE: PRACTICAL SOLUTIONS FOR MANUFACTURERS

SIDNEY K. KANAZAWA, J.D.\*

DAN R. GALLIPEAU, PH.D.\*\*

### I. INTRODUCTION

How can a manufacturer minimize its risk of product liability in the United States? The answer is far from simple. No matter how safe the product, it will not be immune from a U.S. courtroom or public media attack. Products deemed “defective” in U.S. courtrooms and in the public media have generally been more than 99.99% safe—and in many instances have been deemed “defective” without rational scientific support.<sup>1</sup> Natural human sympathy and a general distrust of corporations and government tends to favor injured and grieving persons over manufacturers of products that allegedly caused harm. This favoritism exists even if the product complied with all applicable safety regulations.<sup>2</sup> The playing field is not level.

---

\* Sidney K. Kanazawa is a trial partner at Pillsbury Madison & Sutro LLP, 725 South Figueroa Street, Suite 1200, Los Angeles, California 90017, phone: (213) 488-7148, fax: (213) 629-1033, e-mail: kanazawa\_sk@pillsburylaw.com. Mr. Kanazawa is also a sustaining member of the Product Liability Advisory Council, Inc. and American Law Institute.

\*\* Dan R. Gallipeau is President of Dispute Dynamics, Inc., 21253 Hawthorne Boulevard, Suite A, Torrance, California 90503, phone: (310) 792-9080, fax: (310) 792-1088, e-mail: dgallipeau@disputedynamics.com.

1. See *Fatal Litigation*, FORTUNE, Oct. 16, 1995, at 60 (examining breast implant litigation); RICHARD NEELY, THE PRODUCT LIABILITY MESS: HOW BUSINESS CAN BE RESCUED FROM STATE COURT POLITICS (1988); PETER W. HUBER, LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES (1988); *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387 (D. Or. 1996); PHANTOM RISK: SCIENTIFIC INFERENCE AND THE LAW (Kenneth R. Foster et al. eds., 1993); Paul Ingrassia, *Magazine Gives Ford's Bronco II 'Avoid' Rating*, WALL ST. J., May 18, 1989, at 1-6; Laura McGinley, *Ford Bronco Has No Safety Defect, U.S. Agency Says*, WALL ST. J., Nov. 28, 1990, at A14; *Jury Clears Ford Motor of Liability in Rollover Accident of Its Bronco II*, WALL ST. J., Mar. 22, 1993 at B4; Milo Geyelin, *Jury Orders Ford to Pay \$25 Million for Death Linked to Bronco II Rollover*, WALL ST. J., June 23, 1995, at B2.

2. While noncompliance with a safety regulation automatically establishes liability in most jurisdictions, compliance with safety regulations does not preclude imposition of

Nevertheless, conscientious efforts to create a “good” product for “good” reasons can level the playing field and minimize a manufacturer’s exposure. Using a Failure Modes and Effects Analysis (“FMEA”), we examine how a manufacturer can shift the balance in its favor.

## II. FAILURE MODE: DEFECT OR MISREPRESENTATION

What is the “failure” we are trying to avoid? Basically, it is a finding (by a jury, judge, media group, consumer group, industry group, or a governmental entity) that some injury or damage was caused by a manufacturer’s product “defect” or “misrepresentation” about its product.

Although product liability is a creation of state law and is not uniform throughout the United States, there are certain basic rules and concepts that unify this area of law. Recently, the American Law Institute<sup>3</sup> (“ALI”) embarked on a project to identify and synthesize these underlying rules and concepts. On May 20, 1997, after more than four years of development, the ALI membership unanimously approved the Restatement (Third) Torts: Product Liability (Proposed Final Draft, 1997). This final draft provides an excellent synthesis of product liability law in the United States.

The Restatement articulates the basic defect rule as follows: “[O]ne engaged in the business of selling or otherwise distributing products who sells or distributes a defective product is subject to liability for harm to persons or property caused by the defect.” There are three types of defects: manufacturing,<sup>4</sup> design,<sup>5</sup> and inadequate instruction or warnings.<sup>6</sup> A product is de-

---

product liability. See RESTATEMENT (THIRD) TORTS: PRODUCT LIABILITY § 4 (1997).

3. The American Law Institute is an esteemed organization of legal academic scholars, judges, and lawyers whose charter is to review the common law decisions of courts throughout the country and create from those decisions a synthesis that will lead to greater certainty in the law. See RESTATEMENT OF LAW OF CONTRACTS viii, xi-xii (1932). See also AMERICAN LAW INSTITUTE, THE AMERICAN LAW INSTITUTE 50TH ANNIVERSARY 20-22 (1973); James F. Byrne, Jr., *Reevaluation of the Restatement as a Source of Law in Arizona*, 15 ARIZ. L. REV. 1021 (1973); Shirley S. Abrahamson, *Refreshing Institutional Memories: Wisconsin and the American Law Institute, The Fairchild Lecture*, 1995 WISC. L. REV. 1 (1995).

4. “A product contains a manufacturing defect when the product departs from its intended design even though all possible care was exercised in the preparation and marketing of the product.” RESTATEMENT (THIRD) TORTS: PRODUCT LIABILITY § 2(a) (Proposed Final Draft 1997).

5. The Restatement defines design defects as follows:

A product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the product not reasonably safe.

*Id.* at § 2(b). In California and a few other jurisdictions, design defects are determined under a slightly different two-prong consumer expectations and risk/benefit test. Under California law, a product is defective in design if it: “failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner, . . .

fective if, at the time of sale or distribution, it contains any one of these three defects. Additionally, in certain limited circumstances, a defect can be inferred from the circumstances of the accident.<sup>7</sup> Moreover, noncompliance with a safety rule or regulation will give rise to liability, but compliance will not automatically exonerate the manufacturer.<sup>8</sup>

For misrepresentation, the Restatement provides the basic rule as follows:

One engaged in the business of selling or otherwise distributing products who, in connection with the sale of a product, makes a *fraudulent, negligent or innocent misrepresentation* concerning the product is subject to liability for harm to persons or property resulting from such misrepresentation.<sup>9</sup>

As will be discussed later in this article, however, the decision makers in product liability lawsuits are lay jurors (and the consuming public) who often decide from the heart, rather than from esoteric concepts of law.

---

[or] if the plaintiff demonstrates that the product's design proximately caused his injury and the defendant fails to establish, in light of relevant factors, that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design." Barker v. Lull Engineering Co., 573 P.2d 443, 455-56 (Cal. 1978).

6. "Inadequate instruction or warning" is defined by the Restatement as:

A product is defective because of inadequate instructions or warnings when the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of instructions or warnings renders the product not reasonably safe.

RESTATEMENT (THIRD) TORTS: PRODUCT LIABILITY § 2(c).

7. The inference of a defect is discussed by the Restatement as follows:

It may be inferred that the harm sustained by the plaintiff was caused by a product defect existing at the time of sale or distribution, without proof of a specific defect, when the incident that harmed the plaintiff: (a) was of a kind that ordinarily occurs as a result of product defect; and (b) was not, in the particular case, solely the result of causes other than product defect existing at the time of sale or distribution.

*Id.* at § 3.

8. The consequences of noncompliance and compliance are also addressed in the Restatement:

In connection with liability for defective design or inadequate instructions or warnings: (a) a product's noncompliance with an applicable product safety statute or administrative regulation renders the product defective with respect to the risks sought to be reduced by the statute or regulation; and (b) a product's compliance with an applicable product safety statute or administrative regulation is properly considered in determining whether the product is defective with respect to the risks sought to be reduced by the statute or regulation, but such compliance does not preclude as a matter of law a finding of product defect.

*Id.* at § 4.

9. *Id.* at § 17(a) (emphasis added).

### III. FAILURE EFFECT AND SERIOUSNESS: "FOR WANT OF A NAIL . . ."

What is the effect of this failure? Claims of product defect or misrepresentation can have many serious corollary consequences. These consequences include: (a) unrecoverable defense costs; (b) high money damages; (c) adverse publicity; (d) loss of new sales and flood of new lawsuits; (e) adverse governmental action; and (f) bankruptcy. The mere threat of a defect finding may also trigger these consequences.

*Unrecoverable Defense Costs:* Even if the company successfully defends every lawsuit, defense costs could drain the company of millions of dollars that cannot be recovered from the unsuccessful claimants. In non-contract disputes, court costs may be shifted by the outcome of the case but attorneys' fees and expenses will not. In high stakes serious injury cases, plaintiffs and defendants can each spend a million dollars on fees, expenses, and costs through trial. Even if defendants win at trial, their "sunk" costs are unlikely to be recovered because most injured plaintiffs who pursue a litigation remedy do not have sufficient assets to cover even the court costs in serious product liability litigation.

*High Money Damages:* Money judgments against the company could be substantial depending upon the nature and number of injuries. Multi-million dollar judgments in single injury cases are not uncommon.<sup>10</sup>

*Adverse Publicity:* A defect finding will probably appear in the popular media (if it did not begin in the popular media) and negatively affect the public image of the company. Verdicts *against* a manufacturer are newsworthy, but verdicts *favoring* a manufacturer are not. For instance, the television magazine "60 Minutes" aired a program on the rollover propensity of Jeep CJ-5 vehicles in turning maneuvers,<sup>11</sup> and many newspapers ran articles about verdicts against Jeep in rollover cases.<sup>12</sup> However, the popular media made no mention of a 12-0 design defect defense verdict in favor of Jeep Corporation after a three-month trial in the Los Angeles Superior Court.

10. See Marilyn Marchione, *Jury Awards \$1 Million in Latex Glove Lawsuit*, MILWAUKEE J. SENTINEL, Feb. 26, 1998, at News 1; Margaret Cronin Fisk, *Overall Awards Shrink But New Trends Emerge*, NAT'L L. J., Feb. 23, 1998, at C2; Sandra Torry & Warren Brown, *Driver Burned in Md. Crash is Awarded \$26 Million in Suit Against Ford*, WASHINGTON POST, Nov. 14, 1996, at D1; *The Verdicts Are In, They're Bigger Than Ever*, NEW JERSEY L. J., Sept. 16, 1996, at S5; Jason Wolfe, *Boy, 2, Awarded Millions for Pot-pourri-Pot Scalding*, PORTLAND PRESS HERALD, Aug. 13, 1996, at 1A; Richard Waters, *Litigation: GM to Fight \$150 Million Injury Award*, DAYTON DAILY NEWS, June 5, 1996, at 7B; Dana Coleman, *Jersey Nearly Doubles National Trend: Jury Awards Big*, NEW JERSEY LAWYER, March 25, 1996, at 1; Michael A. Riccardi, *Study: PI Jury Award Median Up in 1995; Product Liability Bucks Trend; Decreases for Second Straight Year*, LEGAL INTELLIGENCER, Jan. 11, 1996, at 1.

11. See *Jeep Defenders Still Bristle Over Old '60 Minutes' Show*, WALL ST. J., May 23, 1998, at 21.

12. See Joseph B. White, *Chrysler Settles Suit Involving Jeep for \$11.5 Million*, WALL ST. J., May 5, 1988, at 6; Alan Herbert, *Judge Affirms Verdict in Auto Liability Case*, J. COMMERCE, Oct. 22, 1986, at 12A.

Amazingly, this lack of media attention occurred during the height of CJ-5 rollover litigation across the country.<sup>13</sup>

*Loss of New Sales and Flood of New Lawsuits:* A single adverse verdict or negative media portrayal may dramatically reduce the sales of new products and unleash a flood of new lawsuits. Sales of the Suzuki Samurai and Isuzu Trooper plummeted and lawsuits increased after adverse articles were published in *Consumer Reports*.<sup>14</sup>

*Adverse Governmental Action:* A single adverse verdict or negative media portrayal may invite greater governmental scrutiny and action. In the silicone breast implant arena, adverse publicity (even without solid scientific support) prompted the FDA to ban the sale of silicone breast implants in the United States.<sup>15</sup>

*Bankruptcy:* A combination of the above events can force a company into bankruptcy. Most of the industry leaders who manufactured asbestos and silicone breast implants are now in bankruptcy.<sup>16</sup>

#### IV. FAILURE FREQUENCY: LOW RISKS ARE IRRELEVANT

What is the frequency of the failure? The objective frequency of a defect finding among the millions of products manufactured each year is actually quite low. Most of the products on the market have never been the subject of a product liability lawsuit. And, even among companies that have been the subject of product liability lawsuits, a large percentage have ultimately obtained favorable verdicts. However, these objectively low frequencies are of little comfort to product manufacturers.

The frequency of plaintiff verdicts in product liability lawsuits is misleading. Ninety-five percent of all cases filed are settled before trial. Most are settled to avoid the high cost of litigation and a possible adverse verdict. The actual statistical risks of harm in product liability cases are usually minuscule. Most, if not all, products deemed "defective" by a court or jury were more than 99.99% safe, and had a statistical risk of causing death or serious injury of less than 0.01%. A suggested alternative design may arguably re-

---

13. One of the authors of this article (Kanazawa) was the lead trial lawyer for Jeep Corporation in the case tried in Los Angeles.

14. See Brian S. Akre, *Isuzu Trooper Sales Plummet After Magazine's Rollover Charge*, ASSOCIATED PRESS, Oct. 1, 1996, LEXIS/NEXIS; Emily Narvaes, *Firms Judged By How They Handle Crises*, DENVER POST, Aug. 27, 1996, at A1; John O'Dell, *Samurai Sales Plunge Sparks Shuffle at American Suzuki*, L.A. TIMES, Sept. 26, 1989, at 4-1; Craig N. Smith, *Marketing Strategies for the Ethics Era*, SLOAN MGMT. REV., June 22, 1995, at 85; *Follow Up: Some Suzuki Rollovers*, CONSUMER REP., Aug. 1998, at 487.

15. See Marlene Cimon, *FDA to Restrict Cosmetic Silicone Breast Implants*, L.A. TIMES, April 17, 1992, at A1; Susan Peterson, *Implant Denounced as a Compromise; Doctors, Women on Both Sides Say FDA Move Political*, ORANGE COUNTY REG., April 17, 1992, at A4; Judy Foreman, *Breast Implant Field Altered by FDA Edict*, BOSTON GLOBE, March 13, 1994, at 1.

16. See Louis Sahagun, *Dow Corning's Bankruptcy Filing; Asbestos Firm Took the Same Path*, L.A. TIMES, May, 16, 1995, at 13.

duce the risk by a factor of ten or one hundred. In other words, a 99.99% safe product is alleged to be “defective” because it is not 99.999% or 99.9999% safe.<sup>17</sup>

However, exact statistical risks pale when serious injury or loss of life is at issue. In the early “fuel tank fire” trials against Ford Motor Company,<sup>18</sup> Ford was chastised for not making its fuel tanks more crashworthy—even though the risk of drowning in a car and the risk of being killed by a country mailbox were statistically greater than the risk of dying in a fuel tank fire.

Indeed, although the automotive industry has been a major focus of product liability litigation, statistically, the risk of death in automobile accidents is extremely small. In 1995, the death rate for motor vehicle accidents was 15.9 deaths per 100,000 individuals within the United States. The rate for other causes of death of similar magnitude were: pneumonia, 31.8; diabetes, 22.5; suicide, 11.8; and homicide, 8.2. In contrast, the death rate for cancer was 204.7 and for heart disease 281.2 per 100,000 individuals. The death rate for all causes was 880 per 100,000 individuals.<sup>19</sup>

Although not supported by objective statistics, the public continues to believe the existence of risky products in the market requires strong legal measures to ensure public safety.<sup>20</sup> Americans are not alone in numeric illiteracy.<sup>21</sup> In Great Britain, the British beef industry was annihilated by the threat of “Mad Cow Disease.” Mass panic arose out of the diagnoses of twelve individuals who *may* have become ill from eating British beef. The population at risk was approximately 60 million. As such, British beef was roughly 99.99998% safe but the British would not eat it.<sup>22</sup> It is *perception*, not real risks, that drives the potential dangers of product liability.<sup>23</sup>

17. See *supra* note 1.

18. One of the authors (Kanazawa) represented Ford Motor Company during the fuel tank fire litigation in the late 1970s and early 1980s.

19. See U.S. DEPT. OF COMMERCE, BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES 1997 (117th ed. 1995).

20. Even with our elaborate and pervasive product liability rules, the United States is not the safest country in the world with respect to accidental deaths. The accident death rate in the United States is approximately 37 deaths per 100,000 population. By contrast, the relative accidental death rate per 100,000 population in Australia is 24.9, in Canada is 32.2, in Costa Rica is 28.9, in Germany is 37, in Greece is 35.7, in Hong Kong is 15.1, in Japan is 28.1, in Singapore is 17.6, and in the United Kingdom is 21.4. If anything, the data suggest accident prevention is highest where the law places a high premium on personal responsibility. See THE UNIVERSAL ALMANAC (Andrews & McMeel eds., 1996).

21. See JOHN ALLEN PAULOS, INNUMERACY: MATHEMATICAL ILLITERACY AND ITS CONSEQUENCES (1988).

22. See P.M. Briefing; *Bonn Joins Ban on British Beef*, L.A. TIMES, June 1, 1990, at P3; James Tobin, *Special Health—Contaminated Cows Provoked a Statewide Cancer Scare, but 20 Years of Monitoring Show the Fears Were Overblown: PBB Fears Unwarranted, Study Shows*, DETROIT NEWS, Aug. 19, 1997, at A1; David Osborne, *Gummer States His Case for Beef*, INDEP., June 8, 1990, at 3.

23. See PETER W. HUBER, GALILEO'S REVENGE: JUNK SCIENCE IN THE COURTROOM (1991).

## V. FAILURE MECHANISMS

### A. *Good vs. Bad*

How does “failure” occur? Despite product liability law’s apparent objective focus upon the product, it is the perception of “good” and “bad” that really determines liability. It is not about real risks. As discussed above, the real risks are generally very small. It is about deciding which party before the court of law or public opinion is “good” and which is “bad.” Thus, to win this emotional evidentiary battle, a manufacturer must establish that its conduct was “good” or, at least, better than the plaintiff’s conduct. How can a manufacturer do this? What factors influence public opinion? The following discussion may provide answers to these questions.

*Jury Selection:* At trial, jurors are randomly selected from the community at large. The individual juror rarely has any specialized knowledge about the product or the issues presented. If he or she had any such specialized knowledge, one of the parties probably would have seen that knowledge as a disadvantage and would have peremptorily excused that juror from the panel during jury selection.

*Public Arena:* Evaluations of a product and its manufacturer in the public marketplace are no different. The general consuming public has little appreciation of the real risks and tradeoffs that must be made to manufacture any product.

*Sympathy:* In deciding the fate of the parties, jurors and the public look to human elements for answers. The parties are not equal. One party is a severely injured person or the grieving family of a deceased or seriously injured person. The other party, a manufacturer, is initially perceived as having the money, the power, and the ability to compensate the victim and make changes in the product to avoid other similar injuries. With nothing said, the injured consumer begins at an advantage by virtue of the sympathy his or her injury will naturally generate.

*Good vs. Bad:* Although the injured customer has the initial advantage, the two parties rise or fall with the evidence. If the injured person was careless, drunk, or lying, he or she will fall from an initial favored position and be labeled “bad.” Moreover, if a company appears to be hiding the truth, seems arrogant, or is callously focused solely on money, the company will fall even further and will be labeled “bad.” In the end, it is the party that remains higher on the scale of “good” and “bad” that ultimately wins. Jurors and the public tend to look at three timeless factors in arriving at this distinction: (1) knowledge, (2) power/ability, and (3) intention/diligence.

On the manufacturer’s side, if the manufacturer knew about a problem and did nothing about it—without any good reason—the manufacturer is labeled “bad.” If not, the manufacturer may not be “bad” nor liable because it could not have known about the risk at issue, or had a good reason for not acting on its knowledge.



Similarly, if the manufacturer had the power or ability to correct the problem and did nothing, was focused solely on money, or was not rigorous in its safety efforts—without any good reason—the manufacturer is labeled as “bad.” However, if the manufacturer could not have done anything differently, did its best under the circumstances, or had a good reason for its conduct, it could avoid the negative label.

On the injured party side, the same concepts apply. If the injured person knew of the risk and ignored it, he or she is “bad.” If the injured person could have easily avoided the accident (by not drinking or by paying attention), the injured person is “bad.” And, if the injured person shades the truth to recover money, his or her intentions will be viewed as “bad” and recovery is unlikely.

### B. Public Perception of Manufacturers

The public generally perceives corporations and government as not worthy of trust, and thus holds strong sympathies for injured people. Accordingly, the public imposes higher standards of “good” on manufacturers. The following data from Dispute Dynamics, Inc.’s national database of potential juror attitudes throughout the country is enlightening. The data were gathered during jury research work on actual cases from 1993 to the present.<sup>24</sup>

While potential jurors generally believe a faultless manufacturer should not compensate injured people, 39% of potential jurors are prone to compensate seriously hurt people for their losses, even if it was their own fault. Moreover, most jurors will acknowledge that 100% certainty does not exist in the real world, but a core group of about 25% tends to ignore all statistics and focus on the “value of one human life.” Rather than seeing 99.999% safe, they see 0.001% danger. When the consequences are serious, an even larger percentage of potential jurors tend to overgeneralize the frequency of rare events leading to those serious consequences. This overgeneralized concern for serious threats to human life is exacerbated in product liability trials by a general distrust of companies and government.

When asked whether executives of companies will lie to increase profits, 60% of the potential jurors agreed and only 16% disagreed. A significant percentage of potential jurors (35%) would award punitive damages to punish a company for insensitive acts, *even if the company did not intend to injure anyone*.

Most potential jurors also believe government safety standards are too heavily influenced by business. Potential jurors are almost evenly split on whether most companies adequately warn consumers of the risks and dangers in using their products, but a significant minority (12%) strongly be-

---

24. The jury research is a compilation of separate studies over several years. It has included groups as small as 500 to 600 people and groups as large as 8,000 people.

lieve most companies do not provide adequate warnings. They are also almost evenly split on whether companies fail to properly field test their products. But, potential jurors strongly believe manufacturers are responsible for determining *every way* their products might be unsafe.

In the automotive context, potential jurors believe automakers should make all possible safety items available, even if the potential for using those items is extremely low. At the same time, there is a strong underlying belief in personal responsibility that is reflected in automotive product liability cases. For example, potential jurors tend to believe most injuries from automobiles happen because people are careless. Potential jurors also tend *not* to agree that the manufacturer is at least partly responsible if a person is injured while using their product, *regardless of the circumstances*.

Thus, while the potential jurors (and the public) will impose high standards on manufacturers to insure the safety of their products, the standard is not insurmountable. If the manufacturer fails to maintain high standards of being “good,” it faces the prospect of not only compensatory damages but also punitive damages—even if it did not intend to injure anyone. On the other hand, while the injured person begins with a favorable bias, that bias will not be sustained in the face of carelessness or other failures in personal responsibility.

## VI. RECOMMENDED ACTION: GOOD REASONS FOR DESIGN AND ACTIONS

What can a manufacturer do to avoid the “failure”? A manufacturer must not only make a reasonably safe product that minimizes “excessive preventable danger” but must also establish itself as “good.”

To appear “good” in the eyes of the jurors (and public), a manufacturer must have a reasonably safe product (no “excessive preventable danger”) and “good” reasons for the design, production, and distribution of its product.<sup>25</sup> There are many practical ways to tilt the evidentiary balance in a manufacturer’s favor. Several methods are suggested and discussed below. Of course, these suggestions are not all applicable to every manufacturer as the realities of the manufacturer’s industry or marketplace may make some of these suggestions difficult, if not impossible, to achieve. The list is intended solely as a sample of alternative choices.

### A. *Organize to Evaluate Designs Early and Regularly*

Consumers and jurors do not care about how a product is made. They

---

25. The concept of “good” and “bad” is similar to the ISO 9000 concept of “quality.” While the pursuit of ISO 9000 certification will not immunize a company from product liability lawsuits, the elements of that pursuit, including safety (a “state in which the risk of harm (to persons) or damage is limited to acceptable level” (ISO 8402: 2.8)), will promote the same positive conduct in the areas of knowledge, power/ability, and intention/diligence that should minimize the company’s exposure.

care only about the end result. Within companies, however, the concerns may vary at different stages in the development of a product. Changes to a design at the end of the design and production cycle are far more expensive, if not impossible, than similar changes at the beginning of the process. Priorities and judgments about a product shift as it nears its final production. Costs will weigh heavily against changes late in the design process, even if the change will provide a significant incremental advantage in the final product. Thus, while company employees may agree that the change would improve the product (or make it safer), the change may not be incorporated because of *when* the change was proposed.

The president of a major corporation aptly explained the concept in discussing a defect that devastated one of its companies' new products. Had the defect been caught in the design review stage, it would have cost \$35 to correct. Had the company caught it after the design review, but before part procurement, it would have cost \$177 to correct. Had the company caught the defect after part procurement, but before assembly, it would have cost \$368 to correct. If the company had caught the defect after production, but before it shipped the product, the defect would have cost \$17,000 to correct. But the defect wasn't caught until the product reached the U.S. marketplace, and it cost the company \$590,000 to correct a \$35 defect; 16,500 times the original expense!<sup>26</sup> Organizing to evaluate a proposed design early and regularly will help reduce the likelihood of increased risks in the final design.

### *B. Organize to Minimize Internal Political Fights Over Product Designs*

Some of the worst documentation about a product is often created in the midst of internal political wars. These documents are later used by opponents to show that the company's own employees were at odds with the final product that was produced and sold. In such political wars, it is not unusual to see flamboyant and exaggerated statements about the relative risks of danger presented by the design. An organizational plan to keep everyone thinking objectively as a team for the single-minded objective of creating a product that will meet and exceed the wants and desires of customers—including the elimination of any "excessive preventable danger" and the tailoring of the product to fit within acceptable limits of risk—will go a long way toward minimizing the risks of product liability.

### *C. Conduct Serious Critiques with Customers (and Competitors)*

Creating a reasonably safe design and good reasons for a design requires a concerted effort by everyone in the company. This process cannot

---

26. This anecdote was discussed by a speaker at a recent DRI product liability seminar in New Orleans, La. (Feb. 4-6, 1998).

be thought of as “window dressing.” If a review is initiated, the company must be prepared to act upon recommendations from that review. Otherwise, the company will be merely creating evidence for an opponent in future litigation.

Some may argue that the critiques will independently increase the risk of product liability. As in all design considerations, there are risks and benefits in every design choice. A climate for serious critiques does increase the prospects of generating negative documents that opponents can later use to show that the company itself was not satisfied with a production model’s design. But such critiques also provide opportunities to detect and correct problems before anyone in the marketplace is affected. The critiques also show “good” intentions and diligence which will be favorably received by jurors and the public.

If critiques are conducted, the proposed solution should be empirically tested with customers and compared to competing products in the market. An automotive engineering consultant recently illustrated the need for this empirical testing. An automotive company’s customers were complaining about the lack of brake sensitivity in a particular line of vehicles. According to customers, too much pressure was required to apply the brakes. In the face of this criticism, the company’s engineers did not believe a change in brake sensitivity was warranted. They believed reducing foot pressure would decrease the safety of the vehicle by increasing the likelihood of rear wheel lockup. But a manager insisted on empirically testing this theory. Despite the engineers’ initial safety assumptions, they found other manufacturers used both lighter and heavier foot pressure designs and did not have rear wheel lockup problems. They also found that customers favored the lighter pressure design. When lighter pressure designs were ultimately utilized in subsequent models, the empirical testing proved correct—the lighter foot pressure designs did not decrease safety or increase the incidence of rear wheel lockup.<sup>27</sup>

#### *D. Set Guidelines for “Acceptable Levels of Risk”*

Using a risk matrix (frequency and severity of risk), the company can set policies about what is an *acceptable level of risk* for its products and processes (See Appendix A).

#### *E. Identify Potential Hazards*

To ferret out potential problems in a design, a manufacturer could systematically identify the hazards potentially lurking in that design. This requires looking at the product from a customer’s and bystander’s viewpoint.

---

27. Interview with Charles A. White, Vice President of Engineering, Engineering Analysis Associates, Inc., Bingham Farms, Mich. (Feb. 4, 1998).

From a customer's viewpoint, the manufacturer could envision all the potential circumstances in which its product may be used or abused. This includes the particular location, application, and users or bystanders that might be affected by the product's design. A manufacturer's liability is not limited to intended uses of the product. The manufacturer is responsible for all reasonably foreseeable uses and abuses of the product. This identification of hazards should be for the entire life of the product.

In evaluating the reasonably foreseeable uses and abuses of the product, a manufacturer may consider:

(1) Expected users, bystanders, processors, and abusers (including age, mental/physical limitations, size, strength, attentiveness, etc.)

(2) Expected conditions of use (e.g., lighting, environmental surroundings, noise, etc.)

(3) Anticipated changes (wear and tear and modifications) during the life cycle of product

(4) Government and industry standards, codes, and rules for use of the product and for the industry in which the product will be used

(5) Accident, injury, and damage reports and data for older models of the product and for competitive products

(6) Accident, injury, and damage reports and data for the entire industry in which the product will be used

#### *F. Evaluate the Risks*

After identifying the potential hazards, the manufacturer can evaluate the relative risks presented by each of these hazards. This requires an assessment of the likelihood and severity of a particular hazard, and an evaluation of whether the risks are within the company's "acceptable levels of risk."<sup>28</sup> The safety goal for each product should eliminate "excessive preventable danger." Every product will fail at some point. And, every product can cause some harm. The only two questions are: (1) Under what circumstances will the product cause harm to persons or property (i.e., will it work with reasonable safety in the foreseeable uses and misuses of the product)?; and (2) Is the product's potential for harm an "excessive preventable danger" or will the risk of danger be within acceptable limits?<sup>29</sup>

Acceptable levels of risk can be evaluated by asking the following questions:

*Danger:* What is the danger? What danger can arise from the reasonably foreseeable uses and abuses of the product? How likely is the danger during the life of the product? How severe is the danger? Are there customer expectations (created by government regulations, competitor designs, or the manufacturer's own marketing of the product) inconsistent with the

---

28. See Appendix A.

29. See *id.*

product's design creating an independent false expectation danger?

*Prevention:* Is the danger preventable? Are there practical alternative means (by alternative designs or instructions/warnings or advertisements/representations) of reducing or eliminating the danger? What are the tradeoffs? What are the comparative risks, costs, benefits, and adverse consequences of the alternative design?

*Excessive Danger:* Is the danger in the current design excessive? Do the incremental added benefits (of safety and other features) of the proposed alternative outweigh the risks (costs and adverse consequences) of that alternative? Will twelve objective jurors think the manufacturer was "bad" to have sold the product without reducing the danger (i.e., knowledge, power/ability, intention/diligence)? Does the manufacturer have a legitimate and persuasive reason for its design choice? (Cost, difficulty, and lack of time are insufficient reasons if there is a significant risk of severe human suffering.)

#### G. Redesign to Eliminate "Excessive Preventable Danger"<sup>30</sup>

If the design presents "excessive preventable danger," the manufacturer may determine whether alternative designs can reduce that risk to acceptable levels. This is particularly important if there are other competing products utilizing different designs with lower levels of risk.

An ocean liner experienced a number of injuries from individuals falling down a grand staircase in the middle of the ship. Warnings were issued. The accidents continued. Finally, a railing was installed in the center of the staircase ruining its broad beauty. But after installation, the accident rates fell. The fix was far better than the warnings.

#### H. Instruct or Warn to Eliminate "Excessive Preventable Danger"

If a redesign to reduce "excessive preventable danger" is impractical, a manufacturer may provide instructions and warnings to make sure the user is aware of the nonreduceable hazards. Instructions and warnings are no substitute for redesign. But where redesign is impractical, warnings and instructions may be the only means of reducing "excessive preventable danger" to acceptable levels. Sometimes nothing can be done to redesign a product. A frying pan will always be hot during cooking. An air bag presents a substantial risk of injury if an individual is less than six inches from the air bag when it opens.

---

30. See *Soule v. General Motors Corp.*, 8 Cal.4th 548, 562 (1994).

### *I. Check Advertising and Representations to Eliminate "Excessive Preventable Danger"*

Marketing campaigns, literature, ads, press releases, and presentations associated with a product may be carefully checked to ensure the statements about the product are consistent with the product's design and manufacture. Even if a product's design and manufacture does not present "excessive preventable danger," the product can be "defective" and create liability for the manufacturer if it is represented to be something that it is not. This commonly occurs when the marketing of the product is not integrated with its design engineering. Even innocent misrepresentations about the appropriate uses of the product, its benefits, and its expected performance in particular circumstances can generate major liability for a manufacturer. Express or implied representations about the product that are inconsistent with its design intentions and capabilities will create liability even though the product might have otherwise been "reasonably safe." This point is illustrated in the following example.

A series of motor vehicle television ads depicted a particular vehicle being driven off-road and at a relatively high speed. A plaintiff, who attempted to duplicate these conditions, was injured in an accident. The plaintiff claimed the defendant's advertisements encouraged the reckless behavior.<sup>31</sup>

### *J. Create Rapid Feedback Systems*

An essential element of risk evaluation is early and accurate information about the performance of the product. Although distribution systems are sometimes complicated and corporations are sometimes too large for simple communication systems, rapid feedback about the actual performance of the product can protect a manufacturer from liability for basing its judgment on inadequate information. What is required is information about the manufacturer's own products, information about competitive products, and information about the market in general (including the legal liability arena). Incorporation of all the information into the design evaluation process will ensure decisions that are more sound and defensible in the face of future litigation.

Warranties may be used as a means of gathering field experience with the product. The warranty encourages purchasers to return to the seller to identify problems. Since far more than 90% of all dissatisfied customers never complain and simply shop elsewhere, the opportunity to hear customer complaints is invaluable.

---

31. The television commercial was part of a case wherein one of the authors (Kanazawa) represented the defendant-company.

### K. Educate Employees About the Role of Product Safety

Enhancing product safety is a state of mind. Manufacturers may train their employees to understand the following points: (1) production of technically sound designs is essential but not enough;<sup>32</sup> (2) there must be legitimate and defensible reasons for the company's design and production choices;<sup>33</sup> and (3) enhancing "quality" is consistent with reducing safety risks to acceptable levels and increasing sales through enhanced customer satisfaction.<sup>34</sup>

### L. Teach Employees How to Write

Much of product liability stems from sloppy writing. Manufacturers may find it helpful to train their employees to express themselves factually and with good reasons. In particular, employees may be trained to:

- (1) *Be factual.* Do not speculate—stick to the facts.
- (2) *Be accurate.* Do not exaggerate—be objective.
- (3) *"Close the loop."* Problems identified should be solved.

Additionally, employees may also be instructed to:

(1) *Reduce paper.* Too many sheets can create gaps of information (because one sheet is missing) and create arguments for improper hiding of information.

(2) *Write constructively—do not shift blame.* Write for constructive purposes, not to "CYA."

(3) *Put discussions in context.* Discussions about cost and money are cold in the face of injury and should be avoided, but such discussions are part of reality and must be viewed in a larger context.

(4) *Be conscious of data paths.* Understand where writings and data (e.g., e-mail) can travel, be stored, and can later be retrieved even after hard copies have been destroyed.

(5) *Obey the document retention policy.* Incomplete compliance may unfairly create sinister impressions.

### M. Understand Design Improvement Is a Continual Process

"Closing the loop" does not mean incorporating every potential improvement that someone has thought of in the next production model. Design improvements will continue year after year and, hopefully, every new model will be an improvement over the last model. Design engineering is a practical activity that balances a number of competing factors in every

---

32. See *supra* Part IV.

33. See *supra* Part V.

34. See Matt Murray, *GE Sees \$100 Billion in 1998 Revenue Due to Quality Control*, *Asia Investment*, WALL ST. J., Apr. 23, 1998, at A4.



model.

Although “loops” for improvement will always be open, “loops” for a particular model can be “closed” by using the risk analysis described above. Each “open” issue for a production model should be “closed” by using a risk analysis to help describe the manufacturer’s reason for going forward with production of the current model. In essence, the analysis should lead to a reason why the company believes the current model does not contain “excessive preventable danger,” and is within acceptable levels of risk (e.g., risk is small, danger is small; and change in design will eliminate beneficial design, or will create other increased hazards). This does not mean there will be no further improvement with respect to the component at issue, nor does it mean that the recommendations will not be incorporated in a future improved model. All that is indicated by this analysis is the company’s reason for believing the current design does not contain “excessive preventable danger” and is within acceptable levels of risk.

#### *N. Develop Risk Context Material*

It would help clarify the judgments of company employees if the manufacturer provided some contextual risk information. The manufacturer may find it useful to describe the acceptable levels of risk for its products. It may also be helpful if the manufacturer provided:

- (1) Risk frequency data
- (2) Risk severity data
- (3) Competitive product risk data
- (4) Industry standard risk data
- (5) Overall relative risk data

Employees should understand they are creating a “reasonably safe” product with “acceptable levels of risk” and without “excessive preventable danger.” They are not creating, and cannot create, a “risk-free” product.

#### *O. Create Forms and Systems*

Forms are helpful to streamline communication and thinking during the design, development, and production of a product.

#### *P. Create Workable Document Retention Policy and Management System*

A document retention policy and management system may encourage organized and legitimate destruction and management of documents, without the appearance of hiding. But the policy and system must conform with the way the company conducts its business. An elegant policy or system that is not followed is worthless and potentially dangerous.

### *Q. Create a Crisis Team*

A crisis team may be assembled to be ready to respond when a product liability issue arises. This team could also serve as a review committee that helps ensure closure of all "open loops." The team may include:

- (1) Advanced planning and design engineers
- (2) Production and manufacturing engineers
- (3) Service and parts personnel
- (4) Marketing personnel
- (5) Customer service personnel
- (6) Finance personnel
- (7) Public relations staff or consultants
- (8) Attorneys

The team should work together before a crisis to develop efficient working relationships and high levels of trust and understanding, before a crisis arises.

### *R. Obtain Sensible Insurance*

Unlike other types of claims, product liability claims cannot be considered or insured in isolation. Insurers generally focus upon the financial impact of a single claim, and approach resolution of that claim based on the economics of that single claim. Some insurers will recognize that the resolution of a single claim should consider the effect of that resolution on all other products covered by the insurer. But a manufacturer must take a broader view. A single design defect claim can directly impact an entire line of identically designed products over several years (regardless of the insurer for each year), and can adversely affect the company's market reputation and the sales of all of its other products. As such, an insurer's sensitivity to the costs of litigation affecting a single claim or product line during a particular set of years may be inconsistent with the manufacturer's concerns about the overall exposure and risk created by the claim on the entire company. Consequently, some large manufacturers self-insure to very high levels so that they can single-handedly control the course of the litigation for the benefit of the entire company's product lines. Other manufacturers obtain insurance from companies sensitive to the multiple product effect of a single resolution in product liability litigation.

### *S. Develop a Consistent Defense Strategy*

To be credible and persuasive in litigation, a company should develop a consistent defense strategy. Since product liability arises from the manufacture, design, warnings/instructions, and advertising for entire lines of products, the defense of product liability cases cannot focus solely on a single claim. The defense strategy must consider the effect of that strategy on

all other existing and potential claims, and on the marketing of future products. Likewise, the development of new products must be done with an awareness of its effect on the company's defense strategies for existing products. A lack of consistency will expose the company to increased liability for both the old products and the new "improved" products.

While there is no single "right" strategy for product liability, the strength and flexibility of any strategy is highly dependent upon how the company addresses the issues discussed above. For example, it is difficult to effectively pursue an early resolution strategy, or even an aggressive defense strategy, if the company lacks "good" reasons for its designs. Both strategies will lack strength and credibility due to an absence of a real potential to prevail at trial. By contrast, if the company has thought through its reasons and has legitimate and defensible reasons for its design, both strategies are open to the manufacturer because of its potential strength at trial.

#### *T. It Starts from the Top*

All of the measures discussed above are meaningless unless there is a serious commitment to being a "good" company dedicated to customers that pervades the company. It must start from the top. "Window dressing" will be seen as insincere and will create the potential for greater liability (i.e., cover up). Moreover, what goes on within the company may not be kept secret. Ex-employees (especially disgruntled employees) may provide vital information to opponents if the company was less than sincere in its actions.

### VII. CONCLUSION

Minimizing product liability exposure requires more than simply producing a reasonably safe product with acceptable levels of risk, and without "excessive preventable danger." It also requires company-wide organization and individual employee conduct consistent with timeless principles of "good" conduct in the areas of knowledge, power/ability, and intention/diligence. In short, minimizing exposure requires "good" designs and "good" reasons for the product's design, manufacture, instructions and warnings, and advertising.

APPENDIX A

ACCEPTABLE RISK WORKSHEET

Component	Product
Assessment Description or Question	

Hazard Probability

- Frequent** Likely to occur repeatedly in system life cycle
- Probable** Likely to occur several times in system life cycle
- Occasional** Likely to occur sometime in system life cycle
- Remote** Possible but unlikely to occur in system life cycle
- Improbable** Probability cannot be distinguished from zero
- Impossible** Physically impossible to occur

A				
B				
C				
D				
E				
F				
	IV	III	II	I
	Negligible	Marginal	Critical	Catastrophic

- Unacceptable Risk
- Acceptable Risk

Conclusion/Action Plan:	Risk Assessments By:	Initials:
	Recorded By:	
	Title:	
	Dept:	
	Date:	

