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State of the Art Evidence Admissible to Rebut Evidence of Feasible Design Alternatives.

Patricia Mary McEntee

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joint tortfeasors was obviated by the enactment of article 2212a[62] which allocates the burden of loss among joint tortfeasors based upon each tortfeasor's causal negligence.[63] This result was not effective, however, until the supreme court interpreted the language of the statute in that manner.[64] Thus, the abolition of common law indemnity actions is no more than a true application of the basic goal of the Doctrine of Comparative Negligence and the language and policy reasons behind the Texas Comparative Negligence and Contribution statute: the equitable allocation of liability based upon fault.[65] Whether the supreme court will extend its logic, that liability should follow fault, to encompass cases involving strict liability remains unanswered.

Scott Jackson Duncan

TORTS—Strict Liability—State of the Art Evidence Admissible to Rebut Evidence of Feasible Design Alternatives.

Boatland of Houston, Inc. v. Bailey,
609 S.W.2d 743 (Tex. 1980).

Sam Bailey was killed in a boating accident.[1] His widow and two adult

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Motors Corp. v. Simmons, 558 S.W.2d 855, 859-60 (Tex. 1977) (unable to state a universal test).

62. *See* Butler, Inc. v. Henry, 589 S.W.2d 190, 193 (Tex. Civ. App.—Waco 1979, writ ref'd n.r.e.); Keeton, *Torts, Annual Survey of Texas Law,* 34 Sw. L.J. 1, 19-20 (1980).

63. *See* Austin v. Cooksey, 570 S.W.2d 386, 388 (Tex. 1978); Deal v. Madison, 576 S.W.2d 409, 416-17 (Tex. Civ. App.—Dallas 1978, writ ref'd n.r.e.); TEX. REV. STAT. ANN. art. 2212a, § 2(b) (Vernon Supp. 1980).

64. *See* B & B Auto Supply, Sand Pit, & Trucking Co. v. Central Freight Lines, Inc., 603 S.W.2d 814, 816 (Tex. 1980).

65. *See* Pachowitz v. Milwaukee & Suburban Transp. Co., 202 N.W.2d 268, 272 (Wis. 1972); *cf.* Parker v. Highland Park, Inc., 565 S.W.2d 512, 518 (Tex. 1978) (purpose of comparative negligence is to "apportion negligence according to fault"); Farley v. M M Cattle Co., 529 S.W.2d 751, 758 (Tex. 1975) (comparative negligence apportions negligence). As a result of the holding in *B & B Auto Supply,* each defendant knows he will be responsible for the percentage of negligence, if any, attributed to him by a jury. *See* B & B Auto Supply, Sand Pit, & Trucking Co. v. Central Freight Lines, Inc., 603 S.W.2d 814, 817 (Tex. 1980). If a defendant is found to have been zero percent negligent, his liability will be zero. *See id.* at 816; TEX. REV. CIV. STAT. ANN. art. 2212, § 2(b) (Vernon Supp. 1980).

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1. Boatland of Houston, Inc. v. Bailey, 609 S.W. 2d 743, 745 (Tex. 1980). Bailey was thrown from the boat into the water when his boat struck a partially submerged tree stump.

children brought suit against the manufacturer of the bass boat, Boatland of Houston, Inc., based on strict liability in tort. At trial, to show the boat was defectively designed, the plaintiffs' introduced evidence of a feasible, inexpensive, safety device which would have prevented the accident.[2] To rebut plaintiff's evidence, Boatland introduced evidence demonstrating that although the kill switch was technologically and economically feasible at time of trial, such a design alternative was not feasible at the time of the manufacture and sale of the boat. Plaintiffs' objective to the admission of such "state of the art" evidence was overruled. The trial court rendered judgment for defendant based on the jury's failure to find that the product was defective as well as its findings on other special issues.[3] The court of civil appeals reversed holding state of the art evidence inadmissible on the ground that the care exercised by the manufacturer is not at issue in a products liability case.[4] Boatland appealed to the Texas Supreme Court. Held-*Reversed*. State of the art evidence is admissible to rebut evidence of a feasible design alternative.[5]

Before the Industrial Revolution, the consumer enjoyed a personal relationship with the merchant from whom he purchased goods.[6] The consumer understood the product and could easily inspect it. In order to impose liability upon the manufacturer of goods, therefore, contractual privity between the consumer and the manufacturer was required.[7] The shift in focus of substantive products liability law from fault of the manufacturer to defect of the product[8] arose from the transformation from a

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Bailey was killed by the propeller when the boat circled back and ran over him. *Id.* at 745.

2. *Id.* at 745. Kill switches are simple mechanical devices usually worn by the boat operator who clips a string, or lanyard, to the belt loop of his pants; the other end of the lanyard is attached to the control box beside the driver's seat. When the driver moves a few feet from the boat seat, the string will trip a switch which kills the motor. *See* Bailey v. Boatland of Houston, Inc., 585 S.W.2d 805, 807 (Tex. Civ. App.—Houston [1st Dist.]), *rev'd*, 609 S.W.2d 743 (Tex. 1980).

3. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 745 (Tex. 1980). The jury found that Bailey had (1) misused the boat, (2) failed to follow proper warnings and instructions, and (3) voluntarily assumed the risk. *See* Bailey v. Boatland of Houston, Inc., 585 S.W.2d 805, 807 (Tex. Civ. App.—Houston [1st Dist.]), *rev'd*, 609 S.W.2d 743 (Tex. 1980).

4. *See* Bailey v. Boatland of Houston, Inc., 585 S.W.2d 805, 809-10 (Tex. Civ. App.—Houston [1st Dist.]), *rev'd*, 609 S.W.2d 743 (Tex. 1980).

5. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743 (Tex. 1980).

6. *See* Hill, *How Strict Is Strict, Have the Walls of the Citadel Really Crumbled?*, 32 TEX. B.J. 759, 759 (1969); Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 23 (1965).

7. *See* Talley v. Beever & Hindes, 78 S.W. 23, 25 (Tex. Civ. App. 1903, no writ); Winterbottom v. Wright, 152 Eng. Rep. 402, 402 (Exch. Ch. 1842).

8. *Compare* Bissonette v. Nat'l Biscuit Co., 100 F.2d 1003, 1004 (2d Cir. 1939) (baker's conduct did not meet standard of reasonable care due to glass in bread) *and* Coca-Cola Bottling Co. v. Davidson, 102 S.W.2d 833, 836 (Ark. 1937) (manufacturer did not use due

comparatively safe agricultural society, to an unsafe industrial one. Liability without fault, or strict liability, therefore, is presently imposed on a manufacturer when he places a defective product in the market which is found to be the cause of injury to the user.[9] The cost of resulting injury is imposed on the manufacturer instead of the consumer for reasons of public policy.[10] These policy considerations include the fact that the manufacturer is thought to be in a better position to know the potential dangers in the product and to test for them; the consumer generally relies on the manufacturer's knowledge and warnings; and the manufacturer is in a better position to bear the loss and recoup it by raising the price of the product.[11]

Strict liability cases involving products generally concern design, manufacturing, or marketing defects.[12] A design defect results when a product is marketed in a condition intended by the manufacturer, but which poses a high degree of danger or inadequately protects the consumer from harm.[13] A manufacturing defect is one that does not comport with the design specifications of the manufacturer.[14] The focus in strict liability

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care as evidenced by mouse in bottle) *and* Gordon v. Aztec Brewing Co., 203 P.2d 522, 524 (Cal. 1949) (brewery found negligent due to exploding beer bottle) *with* Reyes v. Wyeth Laboratories, 498 F.2d 1264, 1272 (5th Cir. 1973) (manufacturer of unavoidably unsafe drug is liable for inadequate warning regardless of care taken), *cert. denied*, 419 U.S. 1096 (1974) *and* Rourke v. Garza, 530 S.W.2d 794, 800 (Tex. 1975) (manufacturer liable even though he has exercised all possible care) *and* Crocker v. Winthrop Laboratories, 514 S.W.2d 429, 432-33 (Tex. 1974) (drug company liable regardless of care taken when there is failure to warn of possible danger to a few individuals).

9. *See, e.g.*, Heirs of Fruge v. Blood Servs., 506 F.2d 841, 847 (5th Cir. 1975); Eshbach v. W. T. Grant's & Co., 481 F.2d 940, 942 (3rd Cir. 1973); Herbstman v. Eastman Kodak Co., 342 A.2d 181, 184 (N.J. 1975), *See generally* RESTATEMENT (SECOND) OF TORTS § 402A (1965).

10. *See, e.g.*, Larsen v. General Motors Corp., 391 F.2d 495, 506 (8th Cir. 1968); Chairaluce v. Stanley Warner Management Corp., 236 F. Supp. 385, 386 (D. Conn. 1964); Estabrook v. J. C. Penney Co., 456 P.2d 960, 963 (Ariz. Ct. App.), *vacated*, 464 P.2d 325 (Ariz. 1970).

11. *See* Greenman v. Yuba Power Prod., Inc., 377 P.2d 897, 901, 27 Cal. Rptr. 697, 700 (1962); Whitmer v. Schneble, 331 N.E. 2d 115, 119 (Ill. Ct. App. 1975); Hawkeye Sec. Ins. Co. v. Ford Motor Co., 199 N.W.2d 373, 382 (Iowa 1972); Prosser, *The Fall of the Citadel (Strict Liability to the Consumer)*, 50 MINN. L. REV. 791, 800 (1966).

12. *See, e.g.*, Hagans v. Oliver Mach. Co., 576 F.2d 97, 103-04 (5th Cir. 1978) (defective design in industrial table saw); Messick v. General Motors Corp., 460 F.2d 485, 487 (5th Cir. 1972) (defectively manufactured wheels and axle of car); Technical Chem. Co. v. Jacobs, 480 S.W.2d 602, 606 (Tex. 1972) (can of freon containing no warning was not defectively marketed).

13. *See, e.g.*, Hagans v. Oliver Mach. Co., 576 F.2d 97, 103-04 (5th Cir. 1978); Henderson v. Ford Motor Co., 519 S.W.2d 87, 92 (Tex. 1974); Williams v. General Motors Corp., 501 S.W.2d 930, 937 (Tex. Civ. App.—Houston [1st Dist.] 1973, writ ref'd n.r.e.).

14. *See, e.g.*, Messick v. General Motors Corp., 460 F.2d 485, 487 (5th Cir. 1972) (warped rear wheels and axle caused suspension system to be defective); Cosper v. General

cases involving marketing defects, however, is to warn adequately, or to give instructions.[15]

Strict liability is governed by section 402A of the Second Restatement of Torts.[16] To impose liability upon a manufacturer or seller under section 402A, the defective condition of the product must render it unreasonably dangerous to the user.[17] An injured plaintiff must prove the product's design defect was unreasonably dangerous and the proximate cause of his injury.[18] To avoid liability, the defendant must prove the adequacy of the product's design or assert a defense.[19]

Motors Corp., 472 S.W.2d 552, 554-55 (Tex. Civ. App.—Eastland 1971, writ ref'd n.r.e.) (hole in exhaust system which allowed carbon monoxide to enter cab); Malinak v. Firestone Tire & Rubber Co., 436 S.W.2d 210, 213-14 (Tex. Civ. App.—Houston [1st Dist.] 1968, writ ref'd n.r.e.) (tread which separated from tire made tire defective).

15. *See, e.g.*, Hagans v. Oliver Mach. Co., 576 F.2d 97, 101-03 (5th Cir. 1978); Martinez v. Dixie Carriers, Inc., 529 F.2d 457, 465 (5th Cir. 1976); Borel v. Fibreboard Paper Prod. Corp., 493 F.2d 1076, 1093 (5th Cir. 1973), *cert. denied*, 419 U.S. 869 (1974); *cf.* Graves v. Parke-Davis & Co., 502 S.W.2d 863, 870 (Tex. Civ. App.—Corpus Christi 1973, writ ref'd n.r.e.). Prescription drugs constitute an exception to the duty to warn the ultimate user. The duty to warn extends, however, to the prescribing physician. *Id.* at 870.

16. RESTATEMENT (SECOND) OF TORTS § 402A (1965). This section states:

> 1. One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
>
> (a) the seller is engaged in the business of selling such a product, and
>
> (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
>
> 2. The rule stated in Subsection (1) applies although
>
> (a) the seller has exercised all possible care in the preparation and sale of his product, and
>
> (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

Id.

17. *See* Olsen v. Royal Metals Corp., 392 F.2d 116, 119 (5th Cir. 1968); Henderson v. Ford Motor Co., 519 S.W.2d 87, 92 (Tex. 1974); Hartzell Propeller Co. v. Alexander, 485 S.W.2d 943, 946 (Tex. Civ. App.—Waco 1972, writ ref'd n.r.e.); RESTATEMENT (SECOND) OF TORTS § 402A (1965).

18. *See, e.g.*, Anderson v. Fairchild Hiller Corp., 358 F. Supp. 976, 978 (D. Alaska 1973); McCarty v. F.C. Kingston Co., 522 P.2d 778, 779 (Ariz. Ct. App. 1974); Barker v. Lull Eng'r Co., 573 P.2d 443, 455, 143 Cal. Rptr. 225, 237 (1978). *But see* Rourke v. Garza, 530 S.W.2d 794, 801 (Tex. 1975) (producing cause is the burden of proof); Ford Motor Co. v. Russell & Smith Ford Co., 474 S.W.2d 549, 557 (Tex. Civ. App.—Houston [14th Dist.] 1971, no writ) (plaintiff must prove defect was producing cause of his injury).

19. *Compare* Weakley v. Fischbach & Moore, Inc., 515 F.2d 1260, 1267 (5th Cir. 1975) (isolator switch was not defectively designed) *and* Royal v. Black & Decker Mfg. Co., 205 So. 2d 307, 310 (Fla. Dist. Ct. App. 1968) (plaintiff's failure to allege product's deviation from industry standard rendered product non-defective) *with* Messick v. General Motors Corp., 460 F.2d 485, 493 (5th Cir. 1972) (plaintiff assumed risk by continuing to drive car he knew was defective) *and* Procter & Gamble Mfg. Co. v. Langley, 422 S.W.2d 773, 778 (Tex.

Adequacy of a product's design at the time of manufacture, established by state of the art evidence,[20] is crucial in determining whether a product is unreasonably dangerous.[21] There are two types of state of the art evidence.[22] The first type is evidence the manufacturer has complied with an industry wide or federally instituted safety standard.[23] This kind of evidence attempts to show that others in the field or industry employ the same safety practices, and that these practices are the rule, rather than the exception.[24] In cases based on negligence, compliance with industry customs and standards is relevant because the issue is the manufacturer's exercise of due care.[25]

The second type of state of the art evidence, employed in strict liability actions, has a limited use in products liability litigation[26] and has been

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Civ. App.—Dallas 1967, writ dism'd) (product was misused in failing to follow directions).

20. *See* Bruce v. Martin-Marietta Corp., 544 F.2d 442, 447 (10th Cir. 1976) (state of the art is relevant to establish what was possible technologically at the time the product was manufactured, as opposed to what is feasible at time of suit); RESTATEMENT (SECOND) OF TORTS § 402A, comment g, at 351 (1965) (at the time product leaves the sellers hands). Nebraska's reform act defines state of the art as the best technology reasonably available at the time of manufacturer. *See* NEB. REV. STAT. § 25-21 (Supp. 1978); *cf.* UNIFORM PRODUCTS LAW § 106(a), (Draft 1979), *reprinted in* 44 Fed. Reg. 2998 (1979) (state of the art means safety, technical, mechanical, and scientific knowledge in existence and reasonably feasible for use at time of manufacture).

21. *See* Suvada v. White Motor Co., 210 N.E.2d 182, 188 (Ill. 1965); Wright v. Massey-Harris, Inc., 215 N.E.2d 465, 470 (Ill. App. Ct. 1966).

22. *Compare* Bruce v. Martin-Marietta Corp., 544 F.2d 442, 447 (10th Cir. 1976) (evidence used to establish what was technologically feasible at time of manufacture) *with* Raney v. Honeywell, Inc., 540 F.2d 932, 937 (8th Cir. 1976) (evidence demonstrated standards in the industry at time of manufacturer).

23. The term industry standard is used in its broadest sense and includes the following: (1) published specifications and minimum requirements adopted by an industry, see *Wallner v. Kitchens of Sara Lee, Inc.*, 419 F.2d 1028, 1032 (7th Cir. 1969); *Garrett v. DuPont de Nemours & Co.*, 257 F.2d 687, 689-91 (3d Cir. 1958); (2) professional journals or publications commonly utilized in the industry, see *Webb v. Fuller Brush Co.*, 378 F.2d 500, 502 (3d Cir. 1967); *Santiago v. Package Mach. Co.*, 260 N.E.2d 89, 93-94 (Ill. App. Ct. 1970); *Clark v. Zuzich Truck Lines*, 344 S.W.2d 304, 307 (Mo. Ct. App. 1961); (3) expert testimony of the custom or standard of the industry, see *Shabshin v. Pacifico*, 16 Cal. Rptr. 440, 447 (Ct. App. 1961); *Rourke v. Garza*, 530 S.W.2d 794, 799 (Tex. 1975).

24. *See* Garrett v. DuPont de Nemours & Co., 257 F.2d 687, 689-91 (3d Cir. 1958). Noncompliance with standards may show a defect or unreasonably dangerous condition. *See* Wallner v. Kitchens of Sara Lee, Inc., 419 F.2d 1028, 1032-33 (7th Cir. 1969). Compliance with standards may demonstrate the absence of any defect of dangerous condition. *See* Weakley v. Fischbach & Moore, Inc., 515 F.2d 1260, 1268 (5th Cir. 1975); Royal v. Black & Decker Mfg. Co., 205 So. 2d 307, 310 (Fla. Dist. Ct. App. 1968).

25. *See* Otis Elevator Co. v. LePore, 181 A.2d 659, 661-63 (Md. App. 1962); McComish v. DeSoi, 200 A.2d 116, 120-23 (N.J. 1964); Wilson v. Lowe's Asheboro Hardware, Inc., 131 S.E.2d 501, 505 (N.C. 1963).

26. *See, e.g.*, Bruce v. Martin-Marietta Corp., 544 F.2d 442, 446 (10th Cir. 1976) (evidence employed to establish technological feasibility of aviation industry at time of manu-

characterized by the uncertainty of its application.[27] Strict liability state of the art evidence attempts to establish the product was as safe at the time of manufacture as science, technology, and economics allowed.[28] The plaintiff's most persuasive evidence is to establish feasibility of an alternative or further advanced design available at the time of manufacture.[29] Conversely, the defendant's most effective rebuttal is to present evidence that due to the state of the art, a particular design alternative was not possible.[30] The manufacturer, however, is not required to produce a product representing the ultimate advancement in safety technology.[31]

Most jurisdictions in the United States will admit state of the art evidence while simultaneously admonishing that the manufacturer or seller may still be strictly liable regardless of the fact he has exercised all possible care or that a safer design was unavailable.[32] Nevertheless, the evi-

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facture); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 887 (Alaska 1979) (jury may consider the technological infeasibility of different design); Kerns v. Engelke, 390 N.E.2d 859, 864 (Ill. 1979) (economic, practical, and effective feasibility of alternative designs at time of sale).

27. *Compare* Weakley v. Fischbach & Moore, Inc., 515 F.2d 1260, 1267 (5th Cir. 1975) (state of the art evidence introduced to prove isolator switch not defective) *and* Royal v. Black & Decker Mfg. Co., 205 So. 2d 307, 310 (Fla. Dist. Ct. App. 1968) (plaintiff's failure to allege product's deviation from industry standard rendered product non-defective) *with* Foglio v. Western Auto Supply, 128 Cal. Rptr. 545, 549 (Ct. App. 1976) (manifest error to admit state of the art evidence) *and* Cunningham v. MacNeal Memorial Hosp., 266 N.E.2d 897, 902-03 (Ill. 1970) (error to admit evidence of state of scientific community).

28. *See, e.g.*, Raney v. Honeywell, Inc., 540 F.2d 932, 937 (8th Cir. 1976) (alternative valve designs available); Lolie v. Ohio Brass Co., 502 F.2d 741, 744 (7th Cir. 1974) (alternative design existed at time of manufacture of power cable support clips in terms of cost, practicality, and technology); Kerns v. Engelke, 390 N.E.2d 859, 864 (Ill. 1979) (economic, practical, and effective alternative designs existed at the time of purchase of power takeoff assembly).

29. *See* Rourke v. Garza, 530 S.W.2d 794, 799 (Tex. 1975) (evidence introduced by plaintiff to show at time of sale other scaffolds were customarily equipped with safety cleats); Pizza Inn, Inc. v. Tiffany, 454 S.W.2d 420, 422 (Tex. Civ. App.—Waco 1970, no writ) (plaintiff asserted evidence that other machines defendant sold were equipped with permanent safety shield at time plaintiff purchased defective machine).

30. *See* Bruce v. Martin-Marietta Corp., 544 F.2d 442, 447 (10th Cir. 1976). The court states that state of the art is crucially relevant to products liability and the issue of whether a product is unreasonably dangerous. *See id.* at 447. This is the role state of the art evidence plays in strict liability. *See* Lolie v. Ohio Brass Co., 502 F.2d 741, 744 (7th Cir. 1974); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 877 (Alaska 1979).

31. *See, e.g.*, Hagans v. Oliver Mach. Co., 576 F.2d 97, 103 (5th Cir. 1978); Weakley v. Fischbach & Moore, Inc., 515 F.2d 1260, 1267 (5th Cir. 1975); Henderson v. Ford Motor Co., 519 S.W.2d 87, 93 (Tex. 1974). *But see* Noel v. United Aircraft Corp., 342 F.2d 232, 236 (3d Cir. 1964); Bell Helicopter v. Bradshaw, 594 S.W.2d 519, 530-31 (Tex. Civ. App.—Corpus Christi 1979, writ ref'd n.r.e.).

32. *See, e.g.*, Raney v. Honeywell, Inc., 540 F.2d 932, 937-38 (8th Cir. 1976); Caterpiller Tractor Co. v. Beck, 593 P.2d 871, 887 (Alaska 1979); Kerns v. Engelke, 390 N.E.2d 859, 864

dence may be of value to lend support to the fact that the product is not defective,[33] or to establish the product comes within the exception mentioned in comment k of section 402A[34] pertaining to unavoidably unsafe products.[35]

In addition to, or in lieu of relying on state of the art evidence, a manufacturer or seller can assert a defense to rebut liability.[36] The two traditional defenses are assumption of risk and misuse.[37] Assumption of the risk describes the situation when one voluntarily encounters a danger of which he has knowledge and appreciation.[38] An alternative defense of the manufacturer arises when there is a misuse of the product by the con-

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(Ill. 1979). *But see* Foglio v. Western Auto Supply, 128 Cal. Rptr. 545, 549 (Ct. App. 1976) (manifest error to have instructed jury to consider defendant's compliance with industry standards at time of manufacture); Cunningham v. MacNeal Memorial Hosp., 266 N.E.2d 897, 902-03 (Ill. 1970) (error to admit evidence that scientific community unable to make a product safe).

33. Compliance with safety standards may demonstrate the product is not defective. *See* Weakley v. Fischbach & Moore, Inc., 515 F.2d 1260, 1268 (5th Cir. 1975); Royal v. Black & Decker Mfg. Co., 205 So. 2d 307, 310 (Fla. Dist. Ct. App. 1968).

34. RESTATEMENT (SECOND) OF TORTS § 402A, comment k, at 353 (1965) (products which in the present state of science and technology are incapable of being made safe for their intended use).

35. *See, e.g.,* Drayton v. Jiffee Chem. Corp., 591 F.2d 352, 373 (6th Cir. 1978) (liquid drain cleaner not unavoidably unsafe); Dalke v. Upjohn Co., 555 F.2d 245, 247 (9th Cir. 1977) (tetracycline unavoidably unsafe when improperly prepared); Hamilton v. Motor Coach Indus., Inc., 569 S.W.2d 571, 577 (Tex. Civ. App.—Texarkana 1978, writ ref'd n.r.e.) (spring loaded air cylinder avoidably unsafe product when defective). *But see* Cunningham v. MacNeal Memorial Hosp., 266 N.E.2d 897, 902-03 (Ill. 1970) (state of the art evidence inadmissible to prove product unavoidably unsafe).

36. *See* General Motors Corp. v. Hopkins, 548 S.W.2d 334, 351 (Tex. 1977) (misuse is use so abnormal it cannot be reasonably anticipated by seller); Henderson v. Ford Motor Co., 519 S.W.2d 87, 91-92 (Tex. 1974) (plaintiff did not assume the risk when she involuntarily encountered danger); Southwestern Bell Tel. Co. v. Griffith, 575 S.W.2d 92, 104 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.) (misuse can consist of failure to follow instructions). *See generally* Sales & Perdue, *The Law of Strict Tort Liability in Texas,* 14 HOUS. L. REV. 1, 78-84 (1976-1977).

37. *Compare* Borel v. Fibreboard Paper Prod. Corp., 493 F.2d 1076, 1098 (5th Cir. 1973) (plaintiff did not assume risk by working with asbestos insulation) *and* Messick v. General Motors Corp., 460 F.2d 485, 488 (5th Cir. 1972) (plaintiff continued to drive car after mechanic told him defects would cause his death) *with* Mitchell v. Ford Motor Co., 533 F.2d 19, 20-21 (1st Cir. 1976) (failure to adjust and maintain brakes on dump truck) *and* Proctor & Gamble Mfg. Co. v. Langley, 422 S.W.2d 773, 778 (Tex. Civ. App.—Dallas 1967, writ dism'd) (failure to perform test before applying permanent wave solution).

38. *See* Rabb v. Coleman, 469 S.W.2d 384, 387 (Tex. 1971) (knowledge of escape of butane gas which is highly combustible represented adequate knowledge of specific danger confronting plaintiff); J & W Corp. v. Ball, 414 S.W.2d 143, 147 (Tex. 1967) (attempt to place wooden blocks next to truck wheels demonstrated appreciation of danger); *cf.* Triangle Motors v. Richmond, 152 Tex. 354, 361, 258 S.W.2d 60, 64 (1953) (knowledge of danger of falling through open, unguarded elevator shaft was not knowledge of specific danger).

sumer which proximately caused the plaintiff's accident.[39] Misuse is an effective defense only when it involves a use by the consumer that was unforeseeable by the manufacturer.[40] The terms misuse and assumption of risk overlap each other and are really legal verbiage for contributory fault of the plaintiff.[41] The plaintiff's contributory fault[42] is used as a defense to strict liability in several states.[43] The rationale against contribu-

39. *See, e.g.*, McDevitt v. Standard Oil Co., 391 F.2d 364, 365-66 (5th Cir. 1968) (failure to follow manufacturer's instructions for tire size and pressure); Helene Curtis Indus., Inc. v. Pruitt, 385 F.2d 841, 847 (5th Cir. 1967), *cert. denied*, 391 U.S. 913 (1968) (failure to follow directions for application of hair bleach); Proctor & Gamble Mfg. Co. v. Langley, 422 S.W.2d 773, 778 (Tex. Civ. App.—Dallas 1967, writ dism'd) (failure to perform test applying permanent wave solution). Similarly, the use of a product in violation of a statutory prohibition is unforeseeable misuse. *See* Ruiz v. Flexonics, 517 S.W.2d 853, 860 (Tex. Civ. App.—Corpus Christi 1975, writ ref'd n.r.e.) (use of rubber connector hose in violation of city ordinance); *cf.* Suchomajcz v. Hummel Chem. Co., 524 F.2d 19, 22 (3d Cir. 1975) (manufacturer of chemicals for illegal manufacture of fireworks had duty to warn). Failure to maintain and service a product has been held misuse. *See, e.g.*, Mitchell v. Ford Motor Co., 533 F.2d 19, 20-21 (1st Cir. 1976) (failure to adjust and maintain brakes on dump truck); Bond v. Transairco Co., 514 F.2d 642, 645 (5th Cir. 1975) (power line worker could not recover for injuries sustained when crane fell to ground due to improper maintenance); Hamel v. Young Spring & Wire Corp., 182 S.E.2d 839, 842 (N.C. Ct. App. 1971) (failure to maintain and service cables which stabilized bucket in overhead brake precluded recovery).

40. *See, e.g.*, Mitchell v. Ford Motor Co., 533 F.2d 19, 20-21 (1st Cir. 1976) (failure to service brakes was unforeseeable misuse); McDevitt v. Standard Oil Co., 391 F.2d 364, 370 (5th Cir. 1968) (failure to follow manufacturer's instructions as to proper tire pressure was unforeseeable); Ruiz v. Flexonics, 517 S.W.2d 853, 860 (Tex. Civ. App.—Corpus Christi 1975, writ ref'd n.r.e.) (illegal use of hose was unforeseeable).

41. *See, e.g.*, Hagenbush v. Snap-On Tools Corp., 339 F. Supp. 676, 681-82 (D.N.H. 1972) (assumption of the risk considered as comparative negligence); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 889 (Alaska 1979) (unreasonably continuing in face of known risk of harm is contributory negligence); Henderson v. Ford Motor Co., 519 S.W.2d 87, 90 (Tex. 1974) (contributory negligence requires proving the elements of assumption of risk).

42. The term contributory fault will be used by the author to denote all terms referring to the plaintiff's contribution to his own injury, in lieu of such terms as contributory negligence, modified comparative negligence, pure comparative negligence, assumption of the risk, and misuse.

43. *See, e.g.*, Butaud v. Suburban Marine & Sporting Goods, Inc., 555 P.2d 42, 46 (Alaska 1976); Daly v. General Motors Corp., 575 P.2d 1162, 1169-70, 144 Cal. Rptr. 380, 384 (1978); West v. Caterpillar Tractor Co., 336 So. 2d 80, 89-90 (Fla. 1976). *Contra*, Melia v. Ford Motor Co., 534 F.2d 795, 802 (8th Cir. 1976) (application of Nebraska's comparative negligence statute would be confusing in strict liability case); Hoelter v. Mohawk Serv. Inc., 365 A.2d 1064, 1067 (Conn. 1976) (any misconduct by plaintiff proximately causing his own injuries bars recovery). *See generally* Woods, *The New Kansas Comparative Negligence Act - An Idea Whose Time Has Come*, 14 WASH. L.J. 1, 24-26 (1975). For decades maritime law has allowed seaman to recover from shipowners for unseaworthy ships on a theory that is, in substance, very similar to strict liability. Plaintiff's recovery, however, is reduced by the amount of his own negligence as with comparative negligence. *See, e.g.*, Socony-Vacuum Oil Co. v. Smith, 305 U.S. 424, 431-33 (1939); Price v. Mosler, 483 F.2d 275, 277 (5th Cir. 1973); Manning v. M/V Sea Road, 358 F.2d 615, 617 (5th Cir. 1965).

tory fault as a defense to strict liability is that it is illogical to have a fault based defense when the predicate of liability is not fault based.[44] The proponents of contributory fault defenses reason that it is inequitable to make the manufacturer, and eventually the consumer, bear the complete liability when the plaintiff was partially negligent.[45]

The Supreme Court of Texas adopted section 402A of the Second Restatement of Torts in 1967.[46] In design defect cases, the plaintiff must prove the product was unreasonably dangerous at the time of manufacture or sale[47] and that the product's unreasonably dangerous condition was a producing cause of his injury.[48] Texas courts did not articulate a precise definition of unreasonably dangerous[49] until 1979. In *Turner v. General Motors Corp.*[50] the court held "unreasonably dangerous" would be determined by weighing the risk from a product's use against the

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44. *See, e.g.*, Reyes v. Wyeth Laboratories, 498 F.2d 1264, 1272 (5th Cir. 1974), *cert. denied*, 419 U.S. 1096 (1974); Rourke v. Garza, 530 S.W.2d 794, 798 (Tex. 1975); Crocker v. Winthrop Laboratories, 514 S.W.2d 429, 432-33 (Tex. 1974); *cf.* General Motors Corp. v. Hopkins, 548 S.W.2d 344, 351 (Tex. 1977) (considering defensive issue of misuse while looking to fault of defendant); Southwestern Bell Tel. Co. v. Griffith, 575 S.W.2d 92, 104 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.) (plaintiff's negligence in failing to follow instructions was possible defense); RESTATEMENT (SECOND) OF TORTS § 402A, Comment n, at 356 (1965) (providing for defense of assumption of risk as form of contributory negligence).

45. *See, e.g.*, Haney v. International Harvester Co., 201 N.W.2d 140, 146 (Minn. 1972); Ritter v. Narragansett Elec. Co., 283 A.2d 255, 263 (R.I. 1971); Dippel v. Sciano, 155 N.W.2d 55, 64 (Wis. 1967).

46. *See* McKisson v. Sales Affiliate, Inc., 416 S.W.2d 787, 789 (Tex. 1967); Shamrock Fuel & Oil Sales, Inc. v. Tunks, 416 S.W.2d 779, 786 (Tex. 1967).

47. *See, e.g.*, Martinez v. Dixie Carriers, Inc., 529 F.2d 457, 465-67 (5th Cir. 1976) (manufacturer not liable because warning Hydro-D contained was adequate when it entered market); Henderson v. Ford Motor Co., 519 S.W.2d 87, 92 (Tex. 1974) (filter housing was defective if unreasonably dangerous at time of installation); Garcia v. Sky Climber, Inc., 470 S.W.2d 261, 267-68 (Tex. Civ. App.—Houston [1st Dist.] 1971, writ ref'd n.r.e.) (electric housing mechanism not defective when it left seller's hands). *Contra*, Cronin v. J.B.E. Olson Corp., 501 P.2d 1153, 1163, 104 Cal. Rptr. 433, 443 (1972) (defectiveness not necessarily determined at time of manufacture).

48. *See, e.g.*, Anderson v. Fairchild Hiller Corp., 358 F. Supp. 976, 978 (D. Alaska 1974); McCarty v. F. C. Kingstson Co., 522 P.2d 778, 779 (Ariz. Ct. App. 1974); Barker v. Lull Eng'r Co., 573 P.2d 443, 445, 143 Cal. Rptr. 225, 237 (1978).

49. *See, e.g.*, Rourke v. Garza, 530 S.W.2d 794, 798 (Tex. 1975) (unreasonably dangerous if product exposes user to an unreasonable risk of harm when used for the purpose for which it was intended); Henderson v. Ford Motor Co., 519 S.W.2d 87, 92-93 (Tex. 1974) (bifurcated test instructs jury product is unreasonably dangerous if it: (1) threatens harm to the extent that a prudent manufacturer would not have placed it in the stream of commerce, or (2) does not meet the reasonable expectations of the ordinary consumer); Pittsburg Coca-Cola Bottling Works v. Ponder, 443 S.W.2d 546, 550 (Tex. 1969) (unreasonably dangerous when product is not fit for that which it was intended to be used).

50. 584 S.W.2d 844 (Tex. 1979).

product's utility.[51] State of the art evidence may be used by plaintiff and defendant to bolster or refute the claim that a product is unreasonably dangerous.[52] The purpose and effect of state of the art evidence, however, has been unclear[53] due to the fact the Texas courts are quick to remind litigants that care taken in the manufacture of a product is a consideration and a defense in negligence, but not in strict liability cases.[54]

A manufacturer or seller in Texas can assert the defenses of misuse and assumption of the risk,[55] but his path is less certain if he alleges contributory or comparative negligence.[56] Although there is no contributory negligence defense in Texas with respect to strict liability,[57] there has been

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51. *See id.* at 847. The jury is instructed that utility versus the risk is the definition to be applied in finding a product unreasonably dangerous. The court also listed several factors to be admitted into evidence to aid the jury in their determination. These factors include: (1) utility of the product to the user; (2) availability of safer products to meet the same need; (3) likelihood of injury from use; (4) obviousness of the danger; (5) avoidability of the danger (including the effect of instructions and warnings); (6) manufacturer's ability to eliminate the danger without seriously impairing its usefulness or increasing its cost; and (7) user's awareness of inherent dangers in the product. *Id.* at 846.

52. *See, e.g.*, Turner v. General Motors Corp., 584 S.W.2d 844, 852-53 (Tex. 1979) (evidence introduced to prove industry practice and standard of car roof strength had been met by manufacturer); Rourke v. Garza, 530 S.W.2d 794, 799 (Tex. 1975) (evidence admitted that scaffolds were customarily equipped with cleats which would have prevented the accident); Pizza Inn, Inc. v. Tiffany, 454 S.W.2d 420, 422 (Tex. Civ. App.—Waco 1970, no writ) (dough machine did not have permanent safety shield defendant regularly equipped on other machines sold).

53. *See, e.g.*, Rourke v. Garza, 530 S.W.2d 794, 801 (Tex. 1975); General Motors Corp. v. Hopkins, 535 S.W.2d 880, 890 (Tex. Civ. App.—Houston [1st Dist.]), *aff'd*, 548 S.W.2d 344 (Tex. 1977); Ford Motor Co. v. Russel & Smith Ford Co., 474 S.W.2d 549, 557 (Tex. Civ. App.—Houston [14th Dist.] 1971, no writ).

54. *See, e.g.*, Turner v. General Motors Corp., 584 S.W.d 844, 853 (Tex. 1979) (strict liability not concerned with care taken by manufacturer as public policy favors imposing loss on manufacturer); Gonzales v. Caterpillar Tractor Co., 571 S.W.2d 867, 871 (Tex. 1978) (care taken by supplier of product is ultimate question in negligence action, but strict liability looks to defect alone); Lubbock Mfg. Co. v. Sames, 575 S.W.2d 588, 592 (Tex. Civ. App.—Beaumont) (focal point in strict liability action is defective design not conduct of manufacturer), *aff'd*, 598 S.W.2d 234 (Tex. 1980).

55. *See, e.g.*, General Motors Corp. v. Hopkins, 548 S.Wd 344, 351 (Tex. 1977); Rourke v. Garza, 530 S.W.2d 794, 799-800 (Tex. 1975); Henderson v. Ford Motor Co., 519 S.W.2d 87, 90-91 (Tex. 1974). *See generally* Polelle, *The Foreseeability Concept and Strict Products Liability: The Odd Couple of Tort Law*, 8 RUT-CAM L.J. 101, 129 (1976).

56. *See* Henderson v. Ford Motor Co., 519 S.W.2d 87, 89 (Tex. 1974) (contributory negligence not a defense to strict liability); Shamrock Fuel & Oil Sales, Inc. v. Tunks, 416 S.W.2d 779, 785 (Tex. 1967) (Texas recognizes contributory negligence in strict liability action), *See generally* Sales & Perdue, *The Law of Strict Tort Liability in Texas*, 14 HOUS. L. REV. 1, 66 (1976-1977).

57. *See, e.g.*, Rourke v. Garza, 530 S.W.2d 794, 800 (Tex. 1975); Farley v. M.M. Cattle Co., 529 S.W.2d 751, 758 (Tex. 1975); Bituminous Cas. Corp. v. Black & Decker Mfg. Co., 518 S.W.2d 868, 875 (Tex. Civ. App.—Dallas 1974, writ ref'd n.r.e.). There is also no defense

some foreshadowing of its inevitable appearance.[58] Texas courts, however, have considered the issue of comparative fault and strict liability.[59] In *General Motors Corp. v. Hopkins*,[60] the Texas Supreme Court determined the allocation of fault between a strictly liable manufacturer of a defective carburetor, and a plaintiff who altered the carburetor.[61] The court apportioned each party's percentage of fault in terms of comparative, not contributory negligence.[62] A comparative fault statute was introduced, although not passed, in the last session of the Texas Legislature.[63] Had the bill succeeded, comparative fault would have become a defense diminishing recovery from the supplier of a defective product, just as it does with a negligent user.[64]

The Supreme Court of Texas in *Boatland of Houston, Inc. v. Bailey*,[65] held state of art evidence admissible as rebuttal evidence in defective design cases based on strict liability in tort.[66] The court distinguished state of the art in a negligence action, which means "custom" of the industry,

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of contributory negligence with respect to negligence actions; however, in 1973 Texas adopted a comparative negligence statute for negligence cases. *See* Pedernales Elec. Coop., Inc. v. Schulz, 583 S.W.2d 882, 884 (Tex. Civ. App.—Waco 1979, writ ref'd n.r.e.); Krishnan v. Garza, 570 S.W.2d 578, 582 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.); TEX. REV. CIV. STAT. ANN. art. 2212a (Vernon Supp. 1980).

58. *See* General Motors Corp. v. Hopkins, 548 S.W.2d 344, 352 (Tex. 1977); Edgar, *Products Liability in Texas*, 11 TEX. TECH L. REV. 23, 44-50 (1980); Sales & Perdue, *The Law of Strict Law Liability in Texas*, 14 HOUS. L. REV. 1, 66 (1976-1977).

59. *See* General Motors Corp. v. Hopkins, 548 S.W.2d 344, 352 (Tex. 1977); *cf.* General Motors Corp. v. Simmons, 558 S.W.2d 885, 862-63 (Tex. 1977) (article 2212 inadequate because it fails to provide means to apportion comparative fault of strictly liable manufacturer with negligent co-defendant).

60. 548 S.W.2d 344 (Tex. 1977).

61. *See id.* at 352.

62. *See id.* at 352. The distinction is important because common law contributory negligence sets up a complete bar to recovery by an injured plaintiff. *See* Parrot v Garcia, 436 S.W.2d 897, 901 (Tex. 1969); Thompson v. Jason, 265 S.W.2d 920, 925 (Tex. Civ. App.—Galveston 1954, writ ref'd n.r.e.). With the adoption of article 2212a, a plaintiff in a negligence action can recover as long as his contributory negligence is not greater than the defendant's. *See* Pedernales Elec. Corp. Inc. v. Schulz, 583 S.W.2d 882, 884 (Tex. Civ. App.—Waco 1979, writ ref'd. n.r.e.); Krishnan v. Garza, 570 S.W.2d 578, 582 (Tex. Civ. App.—Corpus Christi 1978, no writ); Hendrix v. Jones-Lake Constr. Co., 570 S.W.2d 546, 551 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.); TEX. REV. CIV. STAT. ANN. art. 2212a (Vernon Supp. 1980).

63. H.B. 1181, First Reading, Sixty-sixth Legislative Session, TEX. H.R.J. 470, 471 (1979). The statute was included in a bill that dealt with other controversial products liability issues and consequently failed. *See id.* at 471.

64. *Cf.* MISS. CODE ANN. § 11-7-15 (1917) (statute speaks of negligence). The Mississippi statute has been judicially construed as extending to suits founded in strict liability. *See* Edwards v. Sears, Roebuck & Co., 512 F.2d 276, 290 (5th Cir. 1975).

65. 609 S.W.2d 743 (Tex. 1980).

66. *See id.* at 749.

from state of the art evidence in a strict liability sense, which means feasibility.[67] The court found that Boatland properly rebutted the plaintiffs' assertion of defective design with evidence that the safety feature, alleged to be commonplace at the time of suit, was unavailable when the boat was manufactured.[68] *Boatland* sharply delineated state of the art as two separate classifications.[69] The strict liability form of state of the art evidence refers to the technological environment when the product was manufactured.[70] In strict liability actions, the manufacturer should be able to rebut allegations that a safer, less dangerous product was available at manufacture.[71]

Judge Pope, joined by Judge Barrow, in a concurring opinion, advocated Texas adopt contributory negligence in place of the confusing defense of misuse and assumption of the risk.[72] The recognition of contributory negligence was suggested in furtherance of the simplification and clarification of products liability litigation.[73]

The dissenting opinion agreed with the majority in allowing the admission of feasibility state of the art evidence by a defendant; however, the

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67. *See id.* at 748. *Compare* Wilson v. Lowe's Asheboro Hardware, Inc., 131 S.E.2d 501, 505 (N.C. 1963) (voluntary adoption of safety code evidenced proper conduct in negligence action) *and* Otis Elevator Co. v. Le Pore, 181 A.2d 659, 661-63 (Md. App. 1962) (evidence of compliance with industry safety code used to show care in negligence case) *with* Raney v. Honeywell, Inc., 540 F.2d 932, 937 (8th Cir. 1976) (alternative valve designs available) *and* Lolie v. Ohio Brass Co., 502 F.2d 741, 744 (7th Cir. 1974) (alternative design existed at time of manufacture of power cable support clips in terms of costs, practicality, and technology).

68. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980).

69. *See id.* at 749. *Compare* McComish v. DeSoi, 200 A.2d 116, 120-123 (N.J. 1964) (speaking of use of industry safety manual to show due care in negligence action) *with* Kerns v. Engelke, 390 N.E.2d 859, 864 (Ill. 1979) (state of the art evidence that economic, practical, and effective alternative designs were available at time of purchase of power take-off assembly was introduced in strict liability action).

70. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980); *see* Bruce v. Martin-Marietta Corp., 544 F.2d 442, 447 (10th Cir. 1976) (state of the art evidence relevant to establish what was possible technologically at time of manufacture).

71. Boatland of Houston, Inc., v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980). As the court most aptly states, the defendant "is entitled to rebut the plaintiff's evidence of feasibility with evidence of limitations on feasibility." *Id.* at 569. *Contra,* Foglio v. Western Auto Supply, 128 Cal. Rptr. 545, 549, (Ct. App. 1976).

72. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980) (Pope, J., concurring); *accord,* Hagenbusch v. Snap-On Tools Corp., 339 F. Supp. 676, 681-82 (D.N.H. 1972) (assumption of risk considered as comparative negligence under New Hampshire law); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 889 (Alaska 1979) (unreasonably continuing in the face of a known risk of harm is contributory negligence).

73. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) (Pope, J., concurring); *see* Butaud v. Suburban Marine & Sporting Goods, Inc., 555 P.2d 42, 45-56 (Alaska 1976); Daly v. General Motors Corp, 575 P.2d 1162, 1169-72, 144 Cal. Rptr. 380, 384-86 (1978).

dissent asserted that "feasibility" should never have been an issue in *Boatland*.[74] Judge Campbell, writing for the dissent, emphasized that the kill switch device was a simple and inexpensive mechanism known of at the time the boat was manufactured, and as such should not have been termed "infeasible."[75] Furthermore, the dissent theorized the issue of feasibility would never have arisen had the defendant been the manufacturer, rather than the retailer, because the manufacturer had the ability to procure and adapt a circuit breaker device for its boats.[76] Consequently, *Boatland* is an industry practice case, as distinguished from a feasibility case.[77]

In *Boatland*, the supreme court for the first time explicated the distinction between the two types of state of the art evidence and their appropriate application.[78] The trade, custom, or practice variety of state of the art evidence is correctly admitted only in negligence cases in which the trier of fact is attempting to discern if the manufacturer exercised ade-

74. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 752-53 (Tex. 1980) (Campbell, J., dissenting).

75. *Id.* at 752-53 (Campbell, J., dissenting). The dissent spoke of the distinction between commercial unavailability and infeasibility and felt *Boatland* was a case of the former, which is not a limitation on feasibility. *Id.* at 752-53 (Campbell, J., dissenting).

76. *Id.* at 752-53 (Campbell, J., dissenting). The dissent argues that if in fact the circuit breaker safety device was not equipped on boats by the manufacturer because they were not readily available, rather than infeasible, the retail-seller cannot claim the concept was infeasible. *Id.* at 752-53 (Campbell, J., dissenting). The principles of strict liability hold the retail-seller faultless and all individuals in the chain of commercial distribution liable for the fault of the manufacturer. The retailer's remedy is indemnification. *See* Texaco, Inc. v. Girard Rubber Corp., 254 N.E.2d 584, 588 (Ill. Ct. App. 1970) (suit by supplier of scaffolds who was held liable by injured party sued lumber company who supplied defective lumber); Farr v. Armstrong Rubber Co., 179 N.W.2d 64, 72 (Minn. 1970) (seller held liable although only role in chain of distribution was as passive retailer); McCrory Corp. v. Girard Rubber Corp., 307 A.2d 435, 438 (Pa. Ct. App. 1973), *aff'd*, 327 A.2d 8 (Pa. 1974) (faultless retailer of suction tip toy arrows brought suit against manufacturer of defective toy for indemnification); *cf.* Ford Motor Co. v. Russell & Smith Ford Co., 474 S.W.2d 549, 558-59 (Tex. 1972) (retail-seller held liable but denied indemnification from manufacturer because retailer knew of defect, ignored it, and made product more dangerous).

77. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 752-53 (Tex. 1980) (Campbell, J., dissenting).

78. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980). *Compare* Otis Elevator Co. v. LePore 181 A.2d 659, 661-63 (Md. App. 1962) (evidence of compliance with industry safety code used to show care in negligence case) *and* Wilson v. Lowe's Asheboro Hardware, Inc., 131 S.E.2d 501, 505 (N.C. 1963) (voluntary adoption of safety code evidenced proper conduct in negligence action) *with* Raney v. Honeywell, Inc., 540 F.2d 932, 937 (8th Cir. 1976) (availability of alternative valve design could be shown in strict liability case) *and* Lolie v. Ohio Brass Co., 502 F.2d 741, 744 (7th Cir. 1974) (evidence of alternative design existing at time of manufacture in terms of cost, practicality, and technology was introduced in strict liability action).

quate care in the production of the product.[79] If due care is established through proof of conformity with industry customs or standards, the defendant has established a *prima facie* defense.[80] In strict liability design cases, when care is not an issue, state of the art in the negligence sense has not been,[81] and is not in the aftermath of *Boatland*, a defense.[82] State of the art, for strict liability purposes, has one meaning—feasibility, and one use—as rebuttal evidence.[83]

The holding in *Boatland* conflicts with the supreme court's recent holding in *Turner v. General Motors Corp.*[84] In *Turner*, the court ruled there would be one jury charge defining unreasonably dangerous according to a risk-utility analysis.[85] The *Turner* court also advanced seven evidentiary

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79. *See, e.g.*, Olson v. Artic Enterprises, Inc., 349 F. Supp. 761, 763 (D.N.D. 1972) (snowmoblie equipped with standard safety equipment contained on all snowmobiles evidenced due care); McComish v. DeSoi, 200 A.2d 116, 120-23 (N.J. 1964) (industry safety manual used to show due care); Wilson v. Lowe's Asheboro Hardware, Inc., 131 S.E.2d 501, 505 (N.C. 1963) (voluntary adoption of safety code evidenced due care in negligence case).

80. *See* Seideneck v. Cal Bayreuther Assoc., 443 S.W.2d 75, 77 (Tex. Civ. App.—Eastland), *aff'd*, 451 S.W.2d 752 (Tex. 1970); Robinson Sons, Inc. v. Wigart, 420 S.W.2d 474, 486 (Tex. Civ. App.—Amarillo), *rev'd on other grounds*, 431 S.W.2d 327 (Tex. 1968). *See generally* Murray, *The State of the Art Defense in Strict Products Liability*, 57 MARQ. L. REV. 649, 649-50 (1974).

81. *See* Turner v. General Motors Corp., 584 S.W.2d 844, 846-47 (Tex. 1979); Rourke v. Garza, 530 S.W.2d 794, 799 (Tex. 1975). *But see* Wallner v. Kitchens of Sara Lee, Inc., 419 F.2d 1028, 1032 (7th Cir. 1969) (published industry standard admitted in strict liability case as state of art evidence).

82. *See* Boatland of Houston v. Bailey, 609 S.W.2d 743, 749 n.3 (Tex. 1980). State of the art evidence is admissible on issue of defectiveness in product design cases, but the opinion is not meant to imply that state of the art constitutes a defense. State of the art's purpose is as rebuttal evidence in strict liability. *Id.* at 570.

83. *See, e.g.*, Bruce v. Martin-Marietta Corp., 544 F.2d 442, 447 (10th Cir. 1976) (state of the art establishes what was feasible technologically at time of manufacture); Lolie v. Ohio Brass Co., 502 F.2d 741, 744 (7th Cir. 1974) (evidence of alternative design existing at time of manufacture in terms of cost, practicality, and technology); Kerns v. Engelke, 390 N.E.2d 859, 864 (Ill. 1979) (evidence that economical, practical, and effective alternatives were available at time of sale); *cf.* UNIFORM PROD. L. LAW § 106(a) (Draft 1979), *reprinted in* 44 Fed. Reg. 2998 (1979) (state of the art means safety, technical, mechanical, and scientific knowledge in existence and reasonably feasible for use at time of manufacture).

84. 584 S.W.2d 844 (Tex. 1979). *Compare* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980) (defendant may introduce evidence of nonuse at manufacture) *with* Turner v. General Motors Corp., 584 S.W.2d 844, 849 (Tex. 1979) (evidence necessary to address appropriate elements of balancing criteria should be overtly advanced by both parties in strict liability action).

85. Turner v. General Motors Corp., 584 S.W.2d 844, 851 (Tex. 1979); *cf.* Henderson v. Ford Motor Co., 519 S.W.2d 87, 92-93 (Tex. 1974) (bifurcated test instructed jury product is unreasonably dangerous if prudent manufacturer would not have placed it in stream of commerce, and product does not meet reasonable expectations of ordinary consumer); Pittsburg Coca-Cola Bottling Works v. Ponder, 443 S.W.2d 546, 550 (Tex. 1969) (product unreasonably dangerous because not fit for that which it was intended to be used).

factors that should be argued and presented to the jury by either litigant during oral argument to aid the jury's risk-utility analysis.[86] The jury's proper determination of a product's defectiveness, according to *Turner*, is dependent upon oral argument by plaintiff and defendant based upon evidence shedding light on the seven evidentiary factors concerning "unreasonably dangerous" and state of the art.[87] *Boatland* stands for the proposition that state of the art evidence is admissible by defendant only as rebuttal to feasibility.[88] After *Boatland*, therefore, the *Turner* evidentiary factors are admissible only in defendant's rebuttal argument, rather than at any time during oral argument. Consequently, *Boatland* restricts the latitude of state of the art evidence that *Turner* permitted the manufacturer to introduce in a defective design case.[89]

Notwithstanding the narrowness of *Boatland*, it is an equitable decision well in line with the policies and principles of strict liability.[90] The

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86. *See* Turner v. General Motors Corp., 584 S.W.2d 844, 849 (Tex. 1979). The seven evidentiary factors to be admitted into evidence to aid the jury in determining a product's "unreasonable dangerousness" are:

(1) utility of the product to the user;
(2) availability of safer products to meet the same need;
(3) likelihood of injury from use;
(4) obviousness of the danger;
(5) avoidability of the danger (including the effect of instructions and warnings);
(6) manufacturer's ability to eliminate the danger without seriously impairing usefulness or increasing its costs; and
(7) user's awareness of inherent dangers in the product.

Id. at 846.

87. *See id.* at 848-49. Many commentators and authorities have advocated factors to be utilized by the jury in assessing the unreasonably dangerous issue. *See* Dickerson, *Products Liability: How Good Does A Product Have To Be?*, 42 IND. L.J. 301, 331 (1967) (five factors); Fischer, *Products Liability - The Meaning of Defect*, 39 MO. L. REV. 339, 359 (1974) (fifteen factors); Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products*, 20 SYRACUSE L. REV. 559, 565 (1969) (five factors); Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 17 (1965) (seven factors).

88. *Compare* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980) (defendant "is entitled to rebut plaintiff's evidence of feasibility with evidence of limitations on feasibility.") *with* Turner v. General Motors Corp., 584 S.W.2d 844, 849 (Tex. 1979) (evidence necessary to address the balancing of risk with utility should be advanced by both parties in a strict liability action).

89. *Compare* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980) (defendant entitled to rebut plaintiff's evidence of feasibility with evidence of limitations on feasibility) *with* Turner v. General Motors Corp., 584 S.W.2d 844, 849 (Tex. 1979) (evidence necessary to address balancing of risk versus utility should be advanced by both parties in a strict liability action).

90. *Boatland*, following the tenants of strict liability, does not address the fault of the manufacturer. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980); *accord*, Heirs of Fruge v. Blood Servs., 506 F.2d 841, 847 (5th Cir. 1975); Eshbach v. W.T. Grant's & Co., 481 F.2d 940, 942 (3d Cir. 1973); Herbstman v. Eastman Kodak Co., 342 A.2d 181, 184

Houston Court of Civil Appeals,[91] as have other courts,[92] objected to the use of state of the art evidence by the defendant because it is indicative of due care, which is indisputably an irrelevant issue in strict liability.[93] *Boatland*, however, speaks of a different type of state of the art evidence, that is, feasibility.[94] State of the art in this sense denotes whether it was within the scientific, technological, or economic bounds of possibility at the time of manufacture to have prevented plaintiff's injury through implementation of an alternative design.[95]

The most common objection to the adoption of comparative causation in strict liability actions, that it is illogical to have a fault based defense to a nonfault liability,[96] is itself illogical.[97] Section 402A, the cornerstone of strict liability,[98] makes no prohibitions against appraising the plain-

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(N.J. 1975).

91. Bailey v. Boatland of Houston, Inc., 585 S.W.2d 805, 807 (Tex. Civ. App.—Houston [1st Dist.]) (state of the art evidence is relevant only to issue of care by defendant which is not a defense in strict liability action), *rev'd*, 609 S.W.2d 743 (Tex. 1980).

92. *See, e.g.*, Foglio v. Western Auto Supply, 128 Cal. Rptr. 545, 549 (Ct. App. 1976) (manifest error to admit evidence touching on state of the art in that manufacturer's care is not at issue); Cunningham v. MacNeal Memorial Hosp., 266 N.E.2d 897, 902, 903 (Ill. 1970) (defense predicated on manufacturer's conduct not available to defendant in strict liability); Mathews v. Stewart Warner Corp., 314 N.E.2d 683, 691-92 (Ill. App. Ct. 1974) (evidence concerning manufacturer's compliance with industry standards properly excluded because it established care taken by defendant).

93. *See, e.g.*, Turner v. General Motors Corp., 584 S.W.2d 844, 851-52 (Tex. 1979); Gonzales v. Caterpillar Tractor Co., 571 S.W.2d 867, 869 (Tex. 1978); Lubbock Mfg. Co. v. Sames, 575 S.W.2d 588, 592 (Tex. Civ. App.—Beaumont), *aff'd*, 598 S.W.2d 234 (Tex. 1980).

94. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980). The court states that the question it was presented with would have been different had the feasibility of kill switches not been disputed. If Boatland had attempted to escape liability through evidence of existing industry standards, the issue would have been care which is only relevant in negligence cases. *See id.* at 749.

95. *See, e.g.*, Bruce v. Martin-Marietta Corp., 544 F.2d 442, 446 (10th Cir. 1976) (evidence employed to establish technological feasibility of aviation industry at time of manufacture); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 887 (Alaska 1979) (jury may consider technological infeasibility of different design); Kerns v. Engelke, 390 N.E.2d 859, 864 (Ill. 1979) (economical, practical, and effective feasibility of alternative designs at time of sale).

96. *See* Rourke v. Garza, 530 S.W.2d 794, 798 (Tex. 1975); Crocker v. Winthrop Laboratories, 514 S.W.2d 429, 432 (Tex. 1974). *See generally* Scarzafava, *An Analysis of Product's Liability in the Aftermath of Hopkins*, 9 ST. MARY'S L.J. 261, 261-63 (1977).

97. *See, e.g.*, Mitchell v. Ford Motor Co., 533 F.2d 19, 20-21 (1st Cir. 1976) (looking to plaintiff's misconduct in failing to maintain and adjust brakes); Messick v. General Motors Corp., 460 F.2d 485, 493 (5th Cir. 1972) (looking to plaintiff's assumption of risk by continuing to drive car he knew was defective); McDevitt v. Standard Oil Co., 391 F.2d 364, 365 (5th Cir. 1968) (looking to plaintiff's failure to follow manufacturer's instructions as to proper tire pressure).

98. *See* McKisson v. Sales Affiliates, Inc., 416 S.W.2d 787, 789 (Tex. 1967) (Texas Supreme Court adopted section 402A); Shamrock Fuel & Oil Sales, Inc. v. Tunks, 416 S.W.2d 779, 783-84 (Tex. 1967) (rationale of decision based on section 402A); *cf.* Greenman v. Yuba

tiff's fault or contribution to his own injury.[99] The opponents' reasoning is less persuasive in light of the fact that products liability litigation has always looked to the plaintiff's conduct.[100] The adoption of contributory fault would merely be changing the label of assumption of the risk and misuse to comparative fault.[101] There seems to be no reason why the manufacturer should bear the complete liability of an injury when the plaintiff was partially at fault.[102] Several jurisdictions have adopted comparative fault as being compatible with the underlying policies of strict liability.[103] When a plaintiff is injured and the defendant has made a de-

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Power Prod., Inc., 377 P.2d 897, 900, 27 Cal. Rptr. 697, 799 (1962) (adopting section 402A and using its exact language in strict liability action).

99. *See* RESTATEMENT (SECOND) OF TORTS § 402A, Comment n, at 356 (1965) (form of contributory negligence known as assumption of risk, by plaintiff, is defense to strict liability); *cf.* Hagenbusch v. Snap-On Tools Corp., 339 F. Supp. 676, 681-82 (D.N.H. 1972) (assumption of risk considered as comparative negligence); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 888-89 (Alaska 1979) (unreasonably continuing in face of known risk of harm is contributory negligence); Henderson v. Ford Motor Co., 519 S.W.2d 87, 89-90 (Tex. 1975) (finding of contributory negligence requires proving elements of assumption of risk).

100. *Compare* Borel v. Fibreboard Paper Prod. Corp., 493 F.2d 1076, 1098 (5th Cir. 1973) (plaintiff did not assume risk by appreciating danger of working with asbestos) *with* McDevitt v. Standard Oil Co., 391 F.2d 364, 376 (5th Cir. 1968) (failure by plaintiff to follow manufacturer's instructions was misuse). Assumption of risk looks to the plaintiff's conduct when he acts with knowledge aforethought of the risk of danger. *See, e.g.*, Messick v. General Motors Corp., 460 F.2d 485, 488 (5th Cir. 1972); Rabb v. Colemann, 469 S.W.2d 384, 387 (Tex. 1971); J & W Corp. v. Ball, 414 S.W.2d 143, 147 (Tex. 1967). Misuse looks to the plaintiff's conduct in using the product. *See, e.g.*, McDevitt v. Standard Oil Co., 391 F.2d 364, 370 (5th Cir. 1968) Helene Curtis Indus., Inc. v. Pruitt, 385 F.2d 841, 855-56 (5th Cir. 1967), *cert. denied*, 391 U.S. 913 (1968); Proctor & Gamble Mfg. Co. v. Langley, 422 S.W.2d 773, 778 (Tex. Civ. App.—Dallas 1967, writ dism'd).

101. *See, e.g.*, Hagenbusch v. Snap-On Tools Corp., 339 F. Supp. 676, 681-82 (D.N.H. 1972) (assumption of risk should be considered comparative negligence); Daly v. General Motors Corp., 575 P.2d 1162, 1168-69, 144 Cal. Rptr. 380, 386-87 (1978) (old defenses to strict liability are combined into larger concept for reasons of fairness); Henderson v. Ford Motor Co., 519 S.W.2d 87, 90 (Tex. 1974) (finding of contributory negligence requires proof of elements of assumption of risk).

102. *See, e.g.*, Butaud v. Suburban Marine & Sporting Goods, Inc., 555 P.2d 42, 45 (Alaska 1976) (pure comparative negligence can provide a predicate of fairness to product's liability when both plaintiff and defendant at fault); Nga Li v. Yellow Cab Co., 532 P.2d 1226, 1241-42, 119 Cal. Rptr. 858, 874 (1975) (disallowing comparative fault results in windfall to plaintiff in direct opposition to principal of liability in proportion to fault); West v. Caterpillar Tractor Co., 336 So. 2d 80, 90-92 (Fla. 1976) (consumer or user should be required to use due care; in event he does not, his recovery should be reduced).

103. *See* Edwards v. Sears, Roebuck & Co., 512 F.2d 276, 290 (5th Cir. 1975); Sun Valley Airlines, Inc. v. Avco-Lycoming Corp., 411 F. Supp. 598, 602-03 (D. Idaho 1976); Hagenbusch v. Snap-On Tools Corp., 339 F. Supp. 676, 681-83 (D.N.H. 1972); Caterpillar Tractor v. Beck, 593 P.2d 871, 887 (Alaska 1979); Daly v. General Motors Corp., 575 P.2d 1162, 1168, 144 Cal. Rptr. 380, 384 (1978); West v. Caterpillar Tractor Co., Inc., 336 So. 2d 80, 89-90 (Fla. 1976); Haney v. International Harvestor Co., 201 N.W.2d 140, 146 (Minn.

fectively designed product, sound principles of risk distribution place at least part of the liability upon the plaintiff who is partially at fault.[104]

The adoption of contributory fault as an equitable approach to strict liability litigation is proposed in the furtherance of clarification and simplification.[105] While seeking to eliminate confusion in terms and policies, the Texas Supreme Court's concurring opinion in *Boatland* is somewhat contradictory and unclear.[106] The opinion advocates disposing of traditional confusing defenses and returning to "contributory negligence."[107] Two sentences later the concurring opinion states, "[t]here is no more reason for an all or nothing defense in strict liability. . . ." [108] This phraseology is misleading in light of the fact common law contributory negligence was abolished in Texas in 1973,[109] and until that time was a com-

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1972); Barry v. Manglass, 389 N.Y.S.2d 870, 875 (App. Div. 1976); Ritter v. Narragansett, 283 A.2d 255, 263 (R.I. 1971); Dippel v. Sciano, 155 N.W.2d 55, 64 (Wis. 1967). The majority of scholars in the field of strict liability have advocated the adoption of comparative fault. *See* Fleming, *The Supreme Court of California 1974-75—Forward: Comparative Negligence at Last - By Judicial Choice*, 64 CAL. L. REV. 239, 269-71 (1976); Noel, *Defective Products: Abnormal Use, Contributory Negligence and Assumption of Risk*, 25 VAND. L. REV. 93, 117-18 (1972); Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 850 (1973). *Contra*, Melia v. Ford Motor Co., 534 F.2d 795, 802 (8th Cir. 1976) (applying Nebraska comparative negligence statute would be confusing in strict liability case); Hoelter v. Mohawk Serv., Inc., 365 A.2d 1064, 1067 (Conn. 1976) (any misconduct by plaintiff will bar recovery if it was proximate cause of his injuries).

104. *See, e.g.*, Daly v. General Motors Corp., 575 P.2d 1162, 1168-69, 144 Cal. Rptr. 380, 386-87 (1978); Haney v. International Harvestor Co., 201 N.W.2d 140, 146 (Minn. 1972); General Motors Corp. v. Hopkins, 548 S.W.d 344, 352 (Tex. 1977).

105. Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) (Pope, J., concurring); *accord*, Butaud v. Suburban Marine & Sporting Goods, Inc., 555 P.2d 42, 44-45 (Alaska 1976); Daly v. General Motors Corp., 575 P.2d 1162, 1169, 144 Cal. Rptr. 380, 387 (1978); Nga Li v. Yellow Cab Co., 532 P.2d 1226, 1240-41, 119 Cal. Rptr. 858, 870 (1975).

106. The concurring opinion apparently uses the term contributory negligence in its non-technical sense, leaving the reader to wonder whether it is referring to pure comparative fault, common law contributory negligence, or statutory contributory negligence. *See* Boatland of Houston Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) (Pope, J., concurring). *Compare* West v. Caterpillar Tractor Co., 336 So. 2d 80, 89-90 (Fla. 1976) (under pure comparative fault each person's fault assessed regardless of plaintiff's percentage of fault) *with* Parrott v. Garcia, 436 S.W.2d 897, 901 (Tex. 1969) (addressing common law contributory negligence which bars plaintiff's recovery) *and* Krishnan v. Garza, 570 S.W.2d 578, 582 (Tex. Civ. App.—Corpus Christi 1978, no writ) (comparative negligence statute in Texas only applied if plaintiff's contributing fault is not greater than defendant's).

107. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) (Pope, J., concurring).

108. *Id.* at 751 (Pope, J., concurring).

109. *See* Pedernales Elec. Coop., Inc. v. Schulz, 583 S.W.2d 882, 884 (Tex. Civ. App.—Waco 1979, writ ref'd n.r.e.) (plaintiff's comparative negligence in driving sailboat mast into power line did not bar recovery since his percentage of fault was less than defendant's); Krishnan v. Garza, 570 S.W.2d 578, 582 (Tex. Civ. App.—Corpus Christi 1978, no writ) (comparative negligence allows jury to apportion damages); Hendrix v. Jones-Lake

plete bar to plaintiff's recovery in negligence.[110] Contrary to the apparent suggestion in the *Boatland* opinion, our present comparative negligence statute[111] is also not advocated. What the opinion does espouse is a pure comparative negligence system similar to the solution in *Hopkins*.[112] If comparative fault was meant, an opinion of such precedence should have more clearly defined its terms. An exponent of pure comparative fault, articulating the concept by way of the vernacular definition of contributory,[113] leaves itself vulnerable to misreading and misinterpretation. Had the opinion elaborated on a practical implementation of the proposed comparative fault system,[114] it would be a better champion for the policy it sanctions.

The implementation of comparative negligence in strict liability actions may present some practical problems for the jury.[115] In jurisdictions where comparative negligence has been adopted in strict liability actions

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Constr. Co., 570 S.W.2d 546, 551 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.) (article 2212a allows a negligent plaintiff to recover); TEX. REV. CIV. STAT. ANN. art. 2212a (Vernon Supp. 1980) (modified comparative negligence statute allowing negligent plaintiff to recover as long as his percentage of negligence is not greater than defendant's).

110. *See* Parrott v. Garcia, 436 S.W.2d 897, 901 (Tex. 1969); Thompson v. Jason, 265 S.W.2d 920, 925 (Tex. Civ. App.—Galveston 1954, writ ref'd n.r.e.).

111. TEX. REV. CIV. STAT. ANN. art. 2212a (Vernon Supp. 1980).

112. *Cf.* Signal Oil & Gas v. Universal Oil Prod., 572 S.W.2d 320, 329 (Tex. 1978) (advocating pure comparative negligence solution which unlike article 2212a would allow buyer to recover portion of damages caused by defective product even if his negligence is greater than seller's); General Motors Corp. v. Hopkins, 548 S.W.2d 344, 352 (Tex. 1977) (pure comparative fault applied in strict liability case although not specifically adopted). *Compare* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) *with* General Motors Corp. v. Hopkins, 548 S.W.2d 344, 352 (Tex. 1977).

113. WEBSTER'S 3RD NEW WORLD INTERNATIONAL DICTIONARY 496 (1963). The word "contributory" is defined as "subject to or contributing to a common fund; of the nature of or forming a contribution . . . ." *Id.*

114. *See* General Motors Corp. v. Hopkins, 548 S.W.2d 344, 352 (Tex. 1977). The court specifically wrote what was meant by pure comparative negligence as applied to strict liability.

> This comparison and division of causes is not to be confused with the statutory scheme of modified comparative negligence which bars all recovery to the plaintiff if his negligence is greater than the negligence of the parties against whom recovery is sought. [citations omitted]. The defense in products liability case, where both defect and misuse contribute to cause the damaging event, will limit the plaintiff's recovery to that portion of his damages equal to the percentage of the cause contributed by the product defect.

Id. at 352.

115. *See* Daly v. General Motors Corp., 575 P.2d 1162, 1170, 144 Cal. Rptr. 380, 388 (1978); Nga Li v. Yellow Cab Co., 532 P.2d 1226, 1240, 119 Cal. Rptr. 858, 866 (1975); Feinberg, *The Applicability Of A Comparative Negligence Defense In A Strict Product's Liability Suit Based On Section 402 A Restatement Of Torts 2d (Can Oil and Water Mix?)*, 42 INS. COUNS. J. 39, 52 (1975).

the jury has the difficult task of weighing the manufacturer's no fault liability against the plaintiff's negligence-based liability.[116] As the third circuit recently stated in *Murray v. Fairbanks Morse,*[117] it is difficult to imagine a successful marriage between strict liability and comparative negligence principles.[118] The strength of this argument, however, is debilitated by the fact that comparative fault has been a defense in conjunction with maritime law for decades.[119] The doctrine of unseaworthiness[120] is analogous to strict liability in that liability is imposed upon a shipowner when a shipboard injury occurs, regardless of care taken by a shipowner to make his ship safe.[121] Juries in these cases effectively assess a plaintiff's negligence in conjunction with the defendant's faultless liability to arrive at an equitable recovery.[122]

At first glance, *Boatland* appears to favor the defendant in products litigation as it provides him with a broader expanse of admissible state of the art evidence. The decision's conflict with *Turner,* however, is significant and leaves the defendant less certain than before *Boatland* as to the proper admission of state of the art evidence.[123] On the other hand,

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116. *See, e.g.,* Murray v. Fairbanks Morse, 610 F.2d 149, 156-57 (3d Cir. 1979) (court refused to extend comparative negligence into arena of strict liability because the two concepts are incongruent); Melia v. Ford Motor Co., 534 F.2d 795, 802 (8th Cir. 1976) (application of Nebraska's comparative negligence statute would be confusing in strict liability case); Hoelter v. Mohawk Serv. Inc., 365 A.2d 1064, 1068, 1069 (Conn. 1976) (a finding of contributory negligence by plaintiff bars his recovery).

117. 610 F.2d 149 (3rd Cir. 1979).

118. *See id.* at 157. *But see* Daly v. General Motors Corp., 575 P.2d 1162, 1170, 144 Cal. Rptr. 380, 388 (1978) (comparative fault applied in strict liability action with minimal practical difficulties).

119. Maritime law routinely incorporates a pure system of comparative fault with the non-fault liability of shipowner's in assessing an ultimate recovery. *See, e.g.,* Socony-Vacuum Oil Co. v. Smith, 305 U.S. 424, 431-32 (1939) (seaman's recovery reduced by amount his negligence contributed to fall on defective step); Price v. Mosler, 483 F.2d 275, 277 (5th Cir. 1973) (yacht captain's recovery for fall reduced by amount of his comparative fault); Manning v. M/V Sea Road, 385 F.2d 615, 617 (5th Cir. 1965) (long shoreman's recovery mitigated by amount of his own negligence).

120. The admiralty doctrine of unseaworthiness holds the owner of a vessel absolutely liable for any injury sustained by a crew member in the course of his employment. *See* Mitchell v. Trawler Racer, Inc., 362 U.S. 539, 549-50 (1960); Davis v. Hill Eng'r, Inc., 549 F.2d 314, 329 (5th Cir. 1977).

121. *See, e.g.,* Faraola v. O'Neill & Yacht Marie Celine, 576 F.2d 1364, 1366 (9th Cir. 1978) (doctrine of unseaworthiness imposes strict liability on ship owner); Hess v. Upper Miss. Towing Corp., 559 F.2d 1030, 1032 (5th Cir. 1977) (liability is imposed regardless of care taken); Davis v. Hill Eng'r, Inc., 549 F.2d 314, 329 (5th Cir. 1977) (unseaworthiness doctrine imposes absolute liability).

122. *See, e.g.,* Socony-Vacuum Oil Co. v. Smith, 305 U.S. 424, 431 (1939); Price v. Mosler, 483 F.2d 275, 277 (5th Cir. 1973); Manning v. M/V Sea Road, 358 F.2d 615, 617 (5th Cir. 1965).

123. *Compare* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 749 (Tex. 1980)

Boatland should serve to eliminate confusion and misunderstanding concerning the proper admission of state of the art evidence in negligence cases in contrast with state of the art evidence in strict liability cases. Remaining undetermined is whether Texas courts will follow the concurring opinion's suggestion to adopt comparative negligence in strict liability cases. The application of this theory is a more equitable approach for the manufacturer than the present standard. Furthermore, the consumer as a member of the general public would benefit because he would not have to bear the loss for multimillion dollar recoveries when an injury was due in part to a plaintiff's negligence. The application of pure comparative negligence in strict liability cases would enable fair and just results to be reached in each case. As the concurring opinion states, the sooner comparative-negligence is adopted, the better.[124]

Patricia Mary McEntee

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with Turner v. General Motors Corp., 584 S.W.2d 884, 849 (Tex. 1979).

124. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W.2d 743, 751 (Tex. 1980) (Pope, J., concurring).