# THE EXPANDING POST-SALE DUTY OF A MANUFACTURER: DOES A MANUFACTURER HAVE A DUTY TO RETROFIT ITS PRODUCTS?

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## I. INTRODUCTION

A small farm operator receives a letter from Plowing Co., a reputable farm machinery manufacturer, stating that there is potential danger with the widgets on her Grim-Reaper XXX, the $350,000 cultivator she purchased five years ago. The letter invites the farmer to ship the cultivator, a machine roughly the size of her house, back to Plowing Co. to be fitted with a recently designed safety device. In addition to the high cost of transporting the machine, the return and repair process would delay cultivation for two weeks and chip away at the farm's waning profitability. Despite realizing that her safety may be at risk, the farmer makes what she believes to be the economically rational decision and disregards the seemingly innocuous piece of paper.

A week later, the letter being all but forgotten, the farmer attempts to use her cultivator. The gigantic "wings" of the machine, which contain the steel blades that actually perform the cultivation, are in their upright position. The widgets hold the wings upright until the operator lowers them mechanically from inside the cultivator's cab. As the farmer approaches the cultivator, the widgets fail and a wing crashes down upon her. She is severely injured and will never be able to farm again.

Has Plowing Co. sufficiently satisfied its post-sale duty to the farmer?[1] Answering that query requires a prediction based on an unsettled and sparse area of tort law that has been hibernating for over thirty years, with only sporadic and usually tangential disturbances from courts and legal journals. The issue concerns the extent of a manufacturer's post-sale duty. Due to the ingenuity of plaintiffs' attorneys in the products liability field, this issue has recently been revived in the form of claims for negligently failing to recall or retrofit products.[2] Because such a claim may be actionable in many courts,[3]

1. The hypothetical is loosely based on Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299 (Kan. 1993), discussed *infra* notes 38–57 and accompanying text.

2. *See, e.g.*, Gregory v. Cincinnati Inc., 538 N.W.2d 325 (Mich. 1995), discussed *infra* notes 72–118 and accompanying text; Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d at 1299, discussed *infra* notes 38–57 and accompanying text; Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *infra* notes 58–71 and accompanying text.

3. *See, e.g.*, *Gregory*, 538 N.W.2d at 333 n.25 (explicitly leaving unanswered the question of whether a duty to retrofit could exist as an extension of a manufacturer's post-sale

and, in at least one recent instance, has been successful,[4] they will become increasingly more common. In the near future, most jurisdictions may be required to determine whether a manufacturer has a duty to recall or retrofit its products.

It is well settled that after a manufacturer relinquishes control of a product to a consumer, the manufacturer retains certain obligations to that consumer as well as to subsequent users of the product.[5] For example, in Arizona, as well as in many other jurisdictions, a manufacturer has a continuing duty to warn when it learns that its product has a dangerous propensity.[6] In light of recent case law addressing the issue,[7] this Note attempts to determine whether, and under what circumstances, Arizona will extend manufacturers' post-sale obligations to require the manufacturer to remedy a danger by retrofitting[8] the product. The scope of this Note is limited to products not covered by the recall authority of federal agencies which regulate, for example, the recall of consumer products and motor vehicles.[9] Thus, large industrial or farm machines are typically at issue because they are often the subject of products liability litigation and no federal legislation grants recall authority over these products.

Part II of this Note describes the case law origins of post-sale obligations on manufacturers requiring more than mere warning.[10] Part III expounds recent case law illustrating the present viability of the issue and its three possible resolutions: (1) a duty to retrofit nondefective products when new safety devices become available, (2) no duty to retrofit under any circumstances, and (3) no independent duty to retrofit, but recognition that such duty could stem from other sources.[11] Part IV summarizes the applicable products liability law in Arizona.[12] Part V analyzes the arguments likely to be raised when the Arizona courts address the issue.[13] Finally, Part VI predicts: (1) that a manufacturer generally does not have a duty to retrofit products

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duty to warn in cases where the product defect is not latent), discussed *infra* notes 72–118 and accompanying text; Readenour v. Marion Power Shovel, 149 Ariz. 442, 448, 719 P.2d 1058, 1064 (1986) (recognizing that a duty to retrofit may exist when the number of products made and sold was small).

4. Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *infra* notes 58–71 and accompanying text.

5. *See* John S. Allee, *Post-sale Obligations of Product Manufacturers*, 12 FORDHAM URB. L.J. 625, 637 n.33 (1984); Victor Schwartz, *The Post Sale Duty to Warn: Two Unfortunate Forks in the Road to a Reasonable Doctrine*, 58 N.Y.U. L. REV. 892 (1983).

6. "The manufacturer of a product must warn of dangers which he knows or should know are inherent in its use. This duty may be a continuing one applying to dangers the manufacturer discovers after sale." Rodriguez v. Besser, 115 Ariz. 454, 459, 565 P.2d 1315, 1320 (App. 1977); *see* LOUIS R. FRUMER & MELVIN I. FRIEDMAN, PRODUCTS LIABILITY §§ 8.02, 158.1 (1983) (listing cases from many jurisdictions that recognize a continuing duty to warn).

7. *See infra* notes 36–118 and accompanying text.

8. For the purposes of this Note, "retrofitting" means recalling and remedying or repairing a product with a dangerous propensity already in the marketplace. *See* Schwartz, *supra* note 5. A typical situation would involve a manufacturer applying a safety device to a previously sold product at no cost to the current user of that product. *See* Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299 (Kan. 1993), discussed *infra* text accompanying notes 38–57.

9. *See* 15 U.S.C. § 2064 (1994); 15 U.S.C. § 1414 (1994).

10. *See infra* notes 15–35 and accompanying text.

11. *See infra* notes 36–118 and accompanying text.

12. *See infra* notes 119–45 and accompanying text.

13. *See infra* notes 146–207 and accompanying text.

merely because new safety devices become available, but (2) in certain circumstances, a manufacturer may be required to take steps beyond mere warning, including retrofitting the dangerous product with a safety device.[14]

## II. A BRIEF HISTORY OF EXPANDED POST-SALE DUTY

Courts and commentators consider the 1959 case of *Comstock v. General Motors Corp.*[15] to be the origin of the post-sale duty to warn.[16] The plaintiff in *Comstock* was injured as a result of the failing power brakes of a 1953 Buick Roadmaster.[17] Evidence demonstrated that the manufacturer had knowledge of the problems with the brake design in the fall of 1952.[18] Although the manufacturer warned its dealers, the court determined that it had an additional duty to "take all reasonable means to convey effective warning to those who had purchased '53 Buicks with power brakes when the latent defect was discovered."[19] The court reasoned that if a duty to warn of a known danger exists at point of sale, "a like duty to give prompt warning exists when a latent defect which makes the product hazardous to life becomes known to the manufacturer shortly after the product has been put into the market."[20]

Soon after *Comstock*, a few jurisdictions determined that in certain circumstances, the post-sale duty of a manufacturer requires more than a reasonable effort to warn about newly discovered dangers.[21] In the first of this line of cases, *Noel v. United Aircraft Corp.*,[22] an aircraft manufacturer supplied a propeller system design which it knew had been involved in ten serious accidents of decoupling, fire, or separation, and fifty-seven incidents of engine fires or engine failures.[23] The Third Circuit Court of Appeals found the defendant manufacturer negligent for not fulfilling its continuing duty to make available new safety devices.[24] Thus, *Noel* stands for the proposition that a manufacturer is under a continuing duty to improve the safety of its products.[25]

Four years later, in *Braniff Airways, Inc. v. Curtis–Wright Corp.*,[26] the Second Circuit Court of Appeals expressly refused to adopt the rule of *Noel*, but recognized that a manufacturer may have a duty to remedy a dangerous product when the dangerous nature of the product is discovered by the manufacturer.[27]

> It is clear that after such a product has been sold and dangerous defects in design have come to the manufacturer's attention, the manufacturer has a duty to either remedy these or, if complete remedy is not feasible, at

14. *See infra* Part VI, at 1051–52.
15. Comstock v. General Motors Corp., 99 N.W.2d 627 (Mich. 1959).
16. *See, e.g.*, Gregory v. Cincinnati Inc., 538 N.W.2d 325, 332 (Mich. 1995); Schwartz, *supra* note 5, at 897 n.2.
17. Comstock v. General Motors Corp., 99 N.W.2d 627, 629–30 (Mich. 1959).
18. *Id.* at 635.
19. *Id.* at 634.
20. *Id.*
21. *See infra* notes 22–34 and accompanying text.
22. Noel v. United Aircraft Corp., 342 F.2d 232 (3d Cir. 1964).
23. *Id.* at 241.
24. *Id.* at 242.
25. *Id.* For a discussion of "continuing duty theory," see Robert B. Patterson, *Products Liability: The Manufacturer's Continuing Duty to Improve a Product or Warn of Defects After Sale*, 62 ILL. B.J. 92 (1973).
26. Braniff Airways, Inc. v. Curtis–Wright Corp., 411 F.2d 451 (2d Cir. 1969).
27. *Id.* at 453.

> least to give users adequate warnings and instructions concerning methods for minimizing the danger.[28]

*Braniff* suggests that, while not having a continuing duty to improve the safety of its products, a manufacturer must take measures, if feasible, beyond mere warning.[29] However, exactly when a remedy is "feasible" remains unclear.[30]

Finally, in 1979, the Texas Civil Appellate Court, using a somewhat different rationale, held that a manufacturer which voluntarily undertook to make its product safer assumed a duty to provide a complete remedy.[31] Bell Helicopter Company developed a new blade system that required less maintenance than its earlier systems and informed all owners of the availability of the system.[32] The court held that Bell's actions were not sufficient to satisfy its legal duty. This duty required the company to "mandate replacement" of the old blade system, or to recommend to the product's users, in language "reasonably calculated to impress upon users the gravity of the risk, that such replacement be made."[33] Specifically, the court held that "once Bell produced a design which was known to be safer [sic], the manufacturer owed a duty to [its customers] using its helicopters to refrain from allowing [the old systems] to be used."[34]

Significantly, the three seminal cases extending manufacturers' post-sale duties involved defendants engaged in the field of aviation.[35] The potential for human injury in aviation is particularly egregious in that slight defects in aircraft components can result in many deaths. This indicates that human safety is a strong motivating factor when courts expand manufacturers' post-sale duties.

## III. THE RECENT REVIVAL OF THE DUTY TO RETROFIT

The last three years have produced three significant cases that explicitly elaborate on a manufacturer's post-sale obligations beyond a duty to warn.[36] Many other recent cases have touched upon the issue without extensive analysis.[37] The three cases that directly confront the issue will likely influence

28. *Id.*
29. *Id.*
30. Schwartz, *supra* note 5, at 899.
31. Bell Helicopter v. Bradshaw, 594 S.W.2d 519, 532 (Tex. Civ. App. 1979).
32. *Id.*
33. *Id.*
34. *Id.* at 530. It is important to note that the helicopter in question was owned by a Bell service station, which was required to adhere to Bell-issued service bulletins. *Id.* at 528, 530–31. This fact could limit the holding of the case to situations in which a special controlling relationship exists between the manufacturer and the owner of the product. Gregory v. Cincinnati Inc., 538 N.W.2d 325, 335 (Mich. 1995). *But see* Schwartz, *supra* note 5. This issue is discussed *infra* notes 90–93 and accompanying text.
35. *See supra* notes 22–34 and accompanying text.
36. Gregory v. Cincinnati Inc., 538 N.W.2d 325 (Mich. 1995), discussed *infra* notes 72–118 and accompanying text; Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299 (Kan. 1993), discussed *infra* notes 38–57 and accompanying text; Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *infra* notes 58–71 and accompanying text.
37. Romero v. International Harvestor Co., 979 F.2d 1444, 1450–51 (10th Cir. 1992) (concluding that the majority of jurisdictions have rejected the contention that a manufacturer of a nondefective product must warn prior product purchasers when a new safety device is developed); Morrison v. Kubota Tractor Corp, 891 S.W.2d 422, 430 (Mo. Ct. App. 1995)

future decisions. In analyzing these cases, it becomes apparent that the potential for confusion in this area of products liability law is high. Therefore, the following sections attempt to synthesize the essential holdings of each case.

### A. Patton v. Hutchinson Wil-Rich Manufacturing Co.: *An Unequivocal "No" to Extending a Manufacturer's Post-Sale Duty*

In 1993, the Supreme Court of Kansas expressly addressed the issue of whether manufacturers are under a duty to recall or retrofit their products in *Patton v. Hutchinson Wil-Rich Manufacturing Co.*[38] The plaintiff in *Patton* was injured in 1990 while changing the hydraulic wing lift cylinder on a cultivator manufactured by Hutchinson Wil-Rich Manufacturing Company (HWR).[39] HWR was aware of accidents connected with its vertical fold cultivator wings that had occurred as early as 1983.[40] In October 1983, a competitor of HWR, Deere & Company, created a new safety device and instituted a retrofit program for its vertical fold ninety-foot cultivators.[41] HWR became aware of Deere & Company's safety device and retrofit program in 1987 or 1988.[42] The Vice President of Engineering and Manufacturing at HWR testified that he believed it was an acceptable risk to choose not to retrofit the HWR cultivators.[43] The Kansas Supreme Court noted that:

> (1) the danger of personal injury and death to the users of the HWR cultivator was significant; (2) HWR had notice of the danger; (3) HWR knew of the existence of a simple safety device which could have been installed to protect people who used the cultivator; and (4) the cost to HWR of making the safety package available would not have been significant.[44]

Nevertheless, the Kansas Supreme Court held in no uncertain terms that Kansas products liability law does not impose upon manufacturers a duty to retrofit or recall their products.[45] The court stated that the section of Kansas products liability statutes dealing with the inadmissibility of subsequent

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(holding that the defendant tractor manufacturer had no post-sale duty to retrofit, but explicitly refusing to hold that there can never be a duty on a manufacturer to retrofit its products); Bragg v. Hi-Ranger, Inc. 462 S.E.2d 321, 330–31 (S.C. Ct. App. 1995) (holding that plaintiff was not entitled to a jury instruction that stated an aerial bucket device manufacturer's duty to warn is continuous, and approving a jury instruction which stated that a manufacturer has no duty to notify previous purchasers of its products about later developed safety devices or to retrofit those products if they were nondefective at the time of manufacture or sale); Polzin v. Knight Mfg. Corp., 537 N.W.2d 149 (Wis. Ct. App. 1995) (affirming a jury instruction that the manufacturer of a manure spreader had no duty to retrofit because the plaintiffs never pled the cause of action of duty to recall or retrofit); Lynch v. McStome & Lincoln Plaza Assocs., 548 A.2d 1276, 1280–81 (Pa. Super. 1988) (stating that an escalator manufacturer who exercised reasonable care in production, but at the time of the accident knew of a safer design, does not have a duty to retrofit its already sold products or to notify the owners of the existence of the new design).

38. Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299 (Kan. 1993).
39. *Id.* at 1304.
40. *Id.* at 1305.
41. *Id.*
42. *Id.*
43. *Id.*
44. *Id.* at 1306.
45. *Id.* at 1315. "The answer to certified questions three and four [whether Kansas products liability law places a duty to retrofit or recall upon manufacturers who learn of a potential danger incident to the use of their products after the products have been sold] is 'no.'" *Id.*

remedial measures, section 60–451,[46] "supports the view that the legislature intended that product defects be judged...when the product leaves the manufacturer's control."[47] Furthermore, section 60–513[48] creates a statute of repose which begins running on the date of manufacture or sale.[49] The statutory scheme, in its entirety, "expresses the intent of the legislature to have any liability for a defective product fixed when the product 'goes out the door' for the first time."[50] Thus, imposing a new duty after the sale of the product would have been incongruous with legislative intent.

The second rationale to deny the existence of a post-sale duty to retrofit was that such a duty would create undesirable incentives for manufacturers.[51] Durability of machinery would be seen as a negative factor by manufacturers if they were subject to post-sale duties.[52] Furthermore, such duties would stifle technology and suppress product safety improvements.[53]

Finally, the court declared that product recalls "are properly the business of administrative agencies as suggested by the federal statutes that expressly delegate recall authority."[54] In support of this rationale, the court cited federal recall legislation dealing with automobiles, consumer products, boats, and medical devices.[55]

The holding of the *Patton* court is unique in its thorough rejection and preclusion of any form of post-sale duty in Kansas beyond a duty to warn.[56] The holding may be limited in application, however, to jurisdictions with similar statutory schemes that restrict plaintiffs' abilities to collect in products liability actions.[57]

### *B.* Hernandez v. Badger Construction Equipment Co.*: A Clear and Far-Reaching "Yes" to Extending a Manufacturer's Post-Sale Duty*

In October of 1994, the California Court of Appeals extended the post-sale duties of a crane manufacturer to an unprecedented level in *Hernandez v. Badger Construction Equipment Co.*[58] The *Hernandez* court held a manufacturer negligent for the failure to conduct an adequate retrofit campaign and distinguished the issue of defective design.[59] The court found that even though the crane at issue was not defective at the time of manufacture and sale, the manufacturer was negligent for not conducting an adequate retrofit

46. KAN. STAT. ANN. § 60–451 (1992).
47. Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d at 1308.
48. KAN. STAT. ANN. § 60–513 (1992).
49. Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d at 1308.
50. *Id.* The court further stated, "[t]he legislature, in the KPLA, has clearly declared the public policy of the state. The policy is to limit the rights of plaintiffs to recover in product liability suits generally and to judge a product for an alleged defect only when it is first sold." *Id.*
51. *Id.* at 1308–09.
52. *Id.* at 1309.
53. *Id.*
54. *Id.* at 1315.
55. *Id.*
56. *Id.*
57. *See infra* notes 146–208 and accompanying text.
58. Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995).
59. *Id.* at 755.

campaign to upgrade its older cranes with a safety device it had begun installing on its new cranes.[60]

The particular crane was purchased in 1981 by Carde Pacific Corporation (Carde), which was in the business of selling and leasing construction equipment.[61] At that time the manufacturer, Badger Construction Equipment Company (Badger), offered as an option an "anti-two-blocking safety device" (ATBD).[62] The crane purchased by Carde did not have an ATBD.[63] In 1988, Badger made the ATBDs standard equipment on all newly manufactured cranes.[64] In 1989, National Steel and Shipbuilding Company (NASSCO) leased the unequipped crane from Carde.[65] Neither Badger nor Carde had retrofitted the crane with an ATBD.[66] On June 5, 1989, a NASSCO employee was injured while operating the crane in an on-the-job accident.[67]

The court found that Badger breached its duty to conduct an adequate retrofit campaign.[68]

> [T]he jury heard evidence that when Badger sold the crane in 1981 industry standards did not require ATBDs as standard equipment. Thus, the jury could properly conclude the crane was not defective in 1981. However, the jury could nonetheless find Badger was negligent when upon determining ATBDs should be installed on all its new cranes it did not adequately seek to retrofit with an ATBD the crane ultimately injuring Employee.[69]

This holding revives the rationale of *Noel*[70] and its progeny.[71] Under this rationale, a manufacturer can be negligent for not retrofitting its products with a safety device, even if the product was not defective at the time of manufacture. Thus, plaintiffs who are unable to succeed on strict liability or negligent design theories would have an additional theory for recovery.

### *C.* Gregory v. Cincinnati Inc.*: A Deceptively Decisive "Maybe"*

In *Gregory v. Cincinnati Inc.*,[72] the plaintiff, a sheet metal worker, was injured while operating a press brake owned by his employer, Sheet Metal Industries (SMI).[73] The press brake at issue allowed its operator to shape metal by depressing a foot pedal which caused the "ram" to descend upon the material.[74] The accident occurred when a piece of metal fell out of the machine to the floor.[75] The plaintiff bent down to pick up the stray piece of metal and placed his left hand on the ram's impact zone.[76] While his hand lay in the press

60. *Id.*
61. *Id.* at 736.
62. *Id.*
63. *Id.*
64. *Id.*
65. *Id.*
66. *Id.*
67. *Id.* at 737.
68. *Id.* at 755.
69. *Id.*
70. Noel v. United Aircraft Corp., 342 F.2d 232 (3d Cir. 1964).
71. *See supra* notes 22–35 and accompanying text.
72. Gregory v. Cincinnati Inc., 538 N.W.2d 325 (Mich. 1995).
73. *Id.* at 327.
74. *Id.*
75. *Id.*
76. *Id.*

brake, he applied pressure to the foot pedal, causing the machine to cycle.[77] As a result, the plaintiff's thumb was severely crushed and required amputation.[78]

The plaintiff brought suit against the manufacturer, Cincinnati Inc., alleging that it negligently designed the press brake because it lacked adequate safeguards at the point of operation and on the foot pedal.[79] The plaintiff also alleged that Cincinnati had a continuing duty to repair or recall the product by installing various safety guards.[80]

The Michigan Supreme Court explained that courts have imposed upon manufacturers three types of post-sale duties: (1) a duty resulting from a post-manufacture improvement in technology that made the product dangerous or defective,[81] (2) a duty based on a special or controlling post-sale relationship between the manufacturer and the owner of the product,[82] and (3) a continuing duty premised on a point-of-manufacture defect.[83]

The first type of post-sale duty involves products which were not legally defective at the time of manufacture or release, but are considered defective because of later improvements in technology.[84] This duty requires manufacturers to either notify purchasers of the improvements or incorporate the improvements into products already on the market.[85] The duty, in essence, would require manufacturers to continually improve the safety of their products regardless of whether the products were initially defective.[86]

The *Gregory* court rejected a duty based on "improvements in technology."[87] The court justified its decision primarily on the policy consideration that imposing such a duty would place an unreasonable burden on manufacturers.[88] "It would discourage manufacturers from developing new

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77. *Id.*
78. *Id.*
79. *Id.* The plaintiff also sued Addy–Morand Machinery, the distributor of the press brake, alleging breach of implied warranty.
80. *Id.*
81. *Id.* at 330 (citing Lynch v. McStome & Lincoln Plaza Assocs., 548 A.2d 1276 (Pa. Super. 1988)). *See also* Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *supra* notes 58–71 and accompanying text.
82. *Gregory*, 538 N.W.2d at 334–35 n.33 (citing Kociemba v. G.D. Searle & Co., 707 F. Supp. 1517 (D. Minn. 1989)). In *Kociemba*, the court held the manufacturer of an intrauterine contraceptive device liable in negligence for breaching its post-manufacture duty to warn or recall. *Kociemba*, 707 F. Supp. at 1517. The *Kociemba* court suggested that a product recall may be available in "special cases" where the manufacturer had "knowledge of a problem with the product, continued [selling] or advertising the product, and [had] a pre-existing duty to warn of dangers associated with the product." *Id.* at 1528.
83. *Gregory*, 538 N.W.2d at 330 (citing Comment, *Manufacturers' Post-sale Duties in Texas—Do They or Should They Exist?*, 17 ST. MARY'S L.J. 965, 967, 987 (1986)).
84. *Id.* at 330, 336–37.
85. *Id.*
86. *Id.*; *see, e.g.*, Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *supra* text accompanying notes 58–71.
87. *Gregory*, 538 N.W.2d at 336–37. "In light of the traditional focus of Michigan products liability law and the onerous effect on manufacturers, we decline to recognize such a duty." *Id.* at 337.
88. *Id.* at 337 n.42.

designs if this could form the bases for suits or result in costly repair and recall campaigns."[89]

The second post-sale duty exists in the rare circumstance where the manufacturer maintains a special or controlling post-sale relationship with the owner of the product.[90] The *Gregory* court interpreted the three seminal extended post-sale duty cases, *Noel*,[91] *Braniff*,[92] and *Bell Helicopter*,[93] as requiring unique relationships for the imposition of post-sale duties.[94]

The post-sale relationship between the parties in *Gregory* consisted of two service calls from SMI asking Cincinnati to make standard repairs and approximately thirty mailings from Cincinnati documenting various safety options.[95] The court held that, "on these facts, there was insufficient proof that Cincinnati assumed a duty to repair or recall the press brake because of some special, controlling relationship with SMI."[96] Although the court noted that Michigan had not yet recognized this form of post-sale duty,[97] the court's analysis seems to imply that in an appropriate situation, such a duty would be imposed in Michigan.[98]

The final type of post-sale duty arises in certain circumstances "depending on the type of danger posed, the manufacturer's knowledge, and the time in which the manufacturer knew, should have known, or actually learned of a possible problem."[99] This duty is appropriately deemed "a postmanufacture duty stemming from a defect at the point of manufacture."[100] In other words, the product must be defective at the time the product is manufactured in order to create a duty that continues after the product is sold.

In analyzing whether a duty existed in this case, the court first distinguished *Comstock v. General Motors Corp.*[101] The *Gregory* court read *Comstock* to stand for the proposition that a manufacturer has a post-sale duty

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89. *Id.* at 337.
90. *Id.* at 335–36.
91. Noel v. United Aircraft Corp., 342 F.2d 232 (3d Cir. 1964), discussed *supra* text accompanying notes 22–25.
92. Braniff Airways, Inc. v. Curtis–Wright Corp., 411 F.2d 451 (2d Cir. 1969), discussed *supra* text accompanying notes 26–30.
93. Bell Helicopter v. Bradshaw, 594 S.W.2d 519 (Tex. Civ. App. 1979), discussed *supra* text accompanying notes 31–34.
94. Gregory v. Cincinnati Inc., 538 N.W.2d 325, 335 n.34 (Mich. 1995). However, most commentators have not interpreted these cases to carry such a limited justification. *See, e.g.*, Allee, *supra* note 5, at 637–38 n.33 (stating that language in *Noel* suggests that a manufacturer had a continuing duty to retrofit in the absence of defect; on rehearing, however, the court emphasized, out of concern for overly far-reaching implications of the holding, that the product was defective as sold); Schwartz, supra note 5, at 898 (stating that the special controlling relationship existing in *Bell Helicopter* arguably was not essential to the court's holding).
95. *Gregory*, 538 N.W.2d at 334.
96. *Id.* at 336.
97. *Id.* at 335.
98. *Id.* "In this case, we are not persuaded that plaintiff proved a continuing relationship sufficient to impose such a duty." *Id.* at 336. By implication, the court held that a post-sale duty based on a "sufficient" continuing relationship could exist. *Id.*
99. *Id.* at 330 (citing John S. Allee, *Post-Sale Obligations of Product Manufacturers*, 12 FORDHAM URB. L.J. 625, 630–38 (1984)).
100. Gregory v. Cincinnati Inc., 538 N.W.2d 325, 330 (Mich. 1995).
101. Comstock v. General Motors Corp. 99 N.W.2d 627 (Mich. 1959) (holding that a car manufacturer had a post-sale duty to warn of latent defects discovered after sale), discussed *supra* text accompanying notes 14–19.

to warn of latent defects when the manufacturer discovers the problem.[102] In *Comstock*, General Motors allegedly did not know of the defect in the braking mechanism at the time of manufacture, but learned of the danger shortly after sale.[103] The plaintiff in *Gregory*, however, did not allege that the defect was latent, but instead that the manufacturer knew or should have known of the dangerous condition of the press brake as sold.[104] The court reasoned that if it was found that the manufacturer should have known of the problem, liability would attach at that point and not post-sale.[105] Under Michigan products liability law, design defect cases require a risk-utility balancing test,[106] which focuses on conduct rather than the product. Therefore, the proof of a defect resolves any issue of latency because the result of the risk-utility test is a finding that the manufacturer either knew or should have known of the danger at the point of manufacture.[107] Constructive knowledge imputed to the manufacturer at the time of design makes the concept of latency irrelevant in a design defect case.[108] Because the claim at issue in *Gregory* is based on a design defect, the court concluded that any post-sale duty stemming from the rationale of *Comstock* was not applicable.[109]

After determining that no post-sale duty existed when the manufacturer had no reason to know of a product's dangerous propensity, the court attempted to decide whether any post-sale duty existed in the absence of the latency issue.[110] In other words, the court analyzed the existence of a post-sale duty in the design defect situation. To this inquiry, the court responded that there was no independent post-sale duty to retrofit or recall a product, as it was unnecessary in light of the risk-utility test.[111] The court cited three additional rationales for not imposing the duty: (1) it could only confuse and potentially taint the jury's verdict;[112] (2) the duty is more properly a consideration for administrative agencies and the legislature;[113] and (3) the cases that have imposed a duty to repair or recall have been few and have been primarily reserved for extraordinary cases, like airplane safety,[114] in which the potential danger is severe and widespread.[115]

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102. *Gregory*, 538 N.W.2d at 332.
103. *Id.* at 332 n.20 (citing *Comstock*, 99 N.W.2d at 627).
104. *Id.* at 332–33.
105. *Id.* at 333.
106. *Id.*
107. *Id.*
108. *Id.*
109. *See id.* at 333 n.23.
110. *Id.* at 333–34.
111. *Id.* "Because a prima facie case is established once the risk utility test is proven, we are persuaded that it is unnecessary and unwise to impose or introduce an additional duty to retrofit or recall a product." *Id.* (citing Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299 (Kan. 1993)).
112. *Id.* at 334 n.27 (citing Note, *The Manufacturer's Duty to Notify of Subsequent Safety Improvements*, 33 STAN. L. REV. 1087, 1087 n.2 (1981)).
113. *Id.*
114. *Id.* In a footnote, the *Gregory* court cites Noel v. United Aircraft Corp., 342 F.2d 232 (3d Cir. 1964) discussed *supra* text accompanying notes 22–25, Braniff Airways, Inc. v. Curtis–Wright Corp., 411 F.2d 451 (2d Cir. 1969), discussed *supra* text accompanying notes 26–30; and Bell Helicopter v. Bradshaw, 594 S.W.2d 519, 532 (Tex. Civ. App. 1979), discussed *supra* text accompanying notes 31–34, for the proposition that the cases extending manufacturers' post-sale duties have all been related to airplane safety. *Gregory*, 538 N.W.2d at 335 n.34).
115. *Gregory*, 538 N.W.2d at 334–35.

The court, however, did not completely resolve the issue of whether it would ever impose on a manufacturer a post-sale obligation to repair or recall its product.[116] In a footnote, the court explicitly left unanswered the question of whether *Comstock* should be extended to include a duty to repair or recall in products suits not based on design defects.[117] The court only resolved that a post-sale duty to retrofit is unnecessary in design defect cases under Michigan's products liability law.[118] The possibility for the imposition of such a duty under different circumstances still exists in Michigan.

## IV. PRODUCTS LIABILITY LAW IN ARIZONA

The following is a description of the three primary product defect situations that give rise to products liability actions in Arizona and an analysis of whether the imposition of a post-sale duty to recall or retrofit would be legally necessary and feasible in each scenario.

### *A. Manufacturing Defects*

A manufacturing defect involves an unintended condition or abnormality in a product and can be identified in most cases by comparing the allegedly defective product with other products in the same line.[119] The manufacturer is subject to liability without regard to care or diligence in preventing defects.[120] If the defect exists and causes physical harm, the product is held to be unreasonably dangerous.[121] "Thus, the standard for manufacturing defects is clearly one of strict liability."[122] When a plaintiff is injured by a manufacturing defect, the defendant is strictly liable and the plaintiff will be fully compensated.[123] Therefore, in such a situation, recovery on the basis of failure to retrofit the product after discovery of the defect initially seems unnecessary.

However, allowing the plaintiff to pursue a cause of action for failure to retrofit in the manufacturing defect situation could affect the plaintiff's recovery. By allowing the plaintiff to demonstrate that a manufacturer acted unreasonably in failing to retrofit its product, the plaintiff fulfills an essential element for obtaining punitive damages:[124] proof of the manufacturer's negligence could establish the defendant's "outrageous" conduct.[125]

### *B. Design Defects*

A design defect, in contrast to a manufacturing defect, occurs when the product is manufactured exactly as the manufacturer intended, but with a

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116. *See id.* at 331–36.
117. *Id.* at 333 n.25. "Because latency is not at issue in this case, the premise recognized in *Comstock* for imposing a duty to warn is lacking. Therefore, we need not consider, and save for another day, whether *Comstock* should be extended to include a duty to repair or recall in other products suits." *Id.*
118. *See id.* at 340.
119. Roger C. Henderson, *Strict Products Liability and Design Defects in Arizona*, 26 ARIZ. L. REV. 261, 263 (1984).
120. *Id.*
121. *Id.*
122. *Id.*
123. *See id.*
124. *See infra* text accompanying notes 191–207 (discussing punitive damages).
125. *See infra* text accompanying notes 191–207.

defective design.[126] As a result, the entire product line may be unreasonably dangerous because of the design.[127]

A manufacturer may be liable both in negligence and strict liability for design defects.[128] For a plaintiff to prove negligence, he must demonstrate that the manufacturer acted unreasonably at the time of manufacture or design of the product.[129] The inquiry focuses on the reasonableness of the manufacturer's choice of design in light of the knowledge available at the time of manufacture.[130] If the manufacturer's design is considered unreasonable given information known at the time of manufacture, an action in negligence will be successful.[131] Injury caused by latent defects, which are unknowable at the time of manufacture, will be actionable in negligence only if the manufacturer breaches some form of a post-sale duty.[132]

In the strict liability situation, knowledge of the danger as revealed by the accident and the testimony at trial is imputed to the manufacturer.[133] Thus, the question is whether, given certain risk/benefit factors,[134] it was unreasonable for a manufacturer with such knowledge to have put the product on the market.[135] If the answer is "yes," then the product is not only defective, but also unreasonably dangerous.[136] In this situation, as with manufacturing defects, a cause of action for failure to retrofit would be unnecessary, except in connection with an effort to obtain punitive damages, because the defendant would be strictly liable.[137]

### *C. Informational Defects*

Informational defects involve problems with product warnings.[138] When the dangerous propensity of a product is known, an informational deficiency may be viewed as a manufacturing defect, thus justifying the imposition of

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126. Henderson, *supra* note 119, at 264.
127. *Id.*
128. *See generally* Dart v. Wiebe Mfg., Inc., 147 Ariz. 242, 709 P.2d 876 (1985). A negligence analysis is the most appropriate in the post-sale context because under a negligence theory, the duty to warn is not keyed to the manufacture or sale of the product and so may be a true post-sale duty. Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299, 1310 (Kan. 1993). In the strict liability analysis, however, the duty to warn exists only at the time the product leaves the manufacturer's control. *Id.*
129. Dart v. Wiebe Mfg., Inc., 147 Ariz. at 246, 709 P.2d at 880.
130. *Id.* at 247–48, 709 P.2d at 881–82.
131. *See id.*
132. *See id.*
133. *Id.* at 248, 709 P.2d at 882.
134. *Id.* at 245–46, 709 P.2d at 879–80. Arizona has adopted the factors prepared by Dean Wade:

> (1) The usefulness and desirability of the product, (2) the availability of other and safer products to meet the same need, (3) the likelihood of injury and its probable seriousness, (4) the obviousness of the danger, (5) common knowledge and normal public expectation of the danger (particularly for established products), (6) the avoidability of injury by care in use of the product (including the effect of instructions or warnings), and (7) the ability to eliminate the danger without seriously impairing the usefulness of the product or making it unduly expensive.

*Id.* (citing Byrns v. Ridell, Inc., 113 Ariz. 264, 267, 550 P.2d 1065, 1068 (1976)).
135. *Id.*
136. *Id.*
137. *See supra* notes 128–36 and accompanying text.
138. Henderson, *supra* note 119, at 263.

strict liability.[139] When, however, the hazardous condition of a product is unknown at the time of manufacture, a showing of fault is required.[140] This latent defect situation is the one in which *Comstock*[141] imposed a post-sale duty to warn.[142] *Gregory*[143] explicitly left open the issue of whether fulfilling the post-sale duty to warn involves retrofitting products.[144] Because Arizona courts recognize the post-sale duty to warn,[145] they must also determine the limits of this duty.

## V. ARGUMENTS UNDERLYING THE POTENTIAL EXTENSION OF MANUFACTURERS' POST-SALE DUTIES IN ARIZONA

The following sections discuss arguments that will likely surface when the Arizona courts address the issue of a manufacturer's duty to retrofit. The arguments are divided into two groups: those opposing the existence of a post-sale duty to retrofit,[146] and those supporting the existence of such a duty.[147] However, the arguments can be construed so as to support both positions. Therefore, an alternative analysis of each argument will be provided.

Upon analysis of the arguments, it becomes apparent that Arizona would not impose upon a manufacturer a duty to retrofit its previously sold nondefective products with newly developed safety devices. However, the existing statutory scheme and case law in Arizona does not preclude courts from imposing upon a manufacturer a duty to retrofit its defective products.

### *A. Arguments Against Extending Post-Sale Duties Beyond a Duty to Warn in Arizona*

#### *1. Arizona law does not require manufacturers to install the ultimate in safety features:* Raschke v. Carrier Corp.

In *Raschke v. Carrier Corp.*,[148] homeowners injured by carbon monoxide poisoning sued the manufacturer of two gas furnaces that had been installed in their house.[149] In *Raschke*, the homeowners alleged a design defect in the pair of furnaces because they lacked sensing mechanisms to stop their operation when a certain level of carbon monoxide was in the air.[150] The court held for the manufacturer, stating, "[a] manufacturer has no duty to make a product which incorporates...the ultimate in safety features."[151]

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139. *Id.*
140. *See id.*
141. Comstock v. General Motors Corp., 99 N.W.2d 627 (Mich. 1959).
142. *See* the discussion of *id.* at *supra* notes 14–19 and accompanying text.
143. Gregory v. Cincinnati Inc., 538 N.W.2d 325 (Mich. 1995), discussed *supra* notes 72–118 and accompanying text.
144. *Id.* at 333 n.25.
145. Rodriguez v. Besser Co., 115 Ariz. 454, 459, 565 P.2d 1315, 1320 (App. 1977).
146. *See infra* notes 148–84 and accompanying text.
147. *See infra* notes 185–207 and accompanying text.
148. Raschke v. Carrier Corp., 146 Ariz. 9, 10, 703 P.2d 556, 557 (App. 1985).
149. *Id.* at 9–10, 703 P.2d at 556–57.
150. *Id.* at 11, 703 P.2d at 558.
151. *Id.* (citing Rodriguez v. Besser Co., 115 Ariz. 454, 565 P.2d 1315 (App. 1977)).

Similarly, in *Gregory*,[152] the Supreme Court of Michigan stated: "[g]enerally, a manufacturer is under no duty to modify its product in accordance with the current state of the art in safety features."[153] The *Gregory* court declined to impose post-sale duties arising from subsequent technological advances.[154] It reasoned that imposing such a duty would place an unreasonable burden upon manufacturers.[155]

A desire to not unreasonably burden manufacturers underlies the holding of *Raschke*.[156] It would be inconsistent with the *Raschke* holding for an Arizona court to expand the post-sale duty to the extent of *Hernandez v. Badger Construction Equipment Co.*[157] and require a manufacturer to upgrade its products with its latest safety designs.[158]

*Alternative Analysis:*

There are circumstances where requiring the latest safety features would not conflict with the policy underlying the *Raschke* holding. The policy focuses on not burdening manufacturers and not stifling innovation.[159] This policy is not furthered, though, in a situation where the safety feature absent from a product existed at the time of manufacture, and where the cost to the manufacturer of retrofitting the products on the market would be small.[160] If retrofitting in such a circumstance would not unduly burden a manufacturer, the general policy of preserving human health would seem to outweigh the merits of the *Raschke* rule.

*2. Arizona has declined to extend a manufacturer's post-sale duty to warn in certain circumstances:* Rodriguez v. Besser Co.

In *Rodriguez v. Besser*,[161] an employee sued the manufacturer of a cement block-cubing machine for injuries received when his head was crushed against the wall of the machine by a revolving paddle.[162] About two weeks after the "cuber" was installed, the employer, without consulting the manufacturer, substantially modified the machine.[163] The manufacturer was notified of the modification by its own representatives sometime after the changes were

152. Gregory v. Cincinnati Inc., 538 N.W.2d 325 (Mich. 1995), discussed *supra* notes 72–118 and accompanying text.
153. *Id.* at 336.
154. *Id.* at 337.
155. *Id.*
156. Raschke v. Carrier Corp., 146 Ariz. 9, 11, 703 P.2d 556, 558 (App. 1985); *see also* Rodriguez v. Besser Co., 115 Ariz. 454, 460, 565 P.2d 1315, 1321 (App. 1977) (expressing concern about placing extreme burdens on manufacturers), discussed *infra* notes 161–67 and accompanying text.
157. Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *supra* notes 58–71 and accompanying text.
158. *Id.* Michigan's decision to not recognize the technological improvement duty was also based on its policy of not unduly burdening manufacturers. *Gregory*, 538 N.W.2d at 337 ("[I]mposing a duty to update technology would place an unreasonable burden on manufacturers. It would discourage manufacturers from developing new designs...."), discussed *supra* notes 72–118 and accompanying text.
159. *See* Schwartz, *supra* note 5.
160. Readenour v. Marion Power Shovel, 149 Ariz. 442, 448, 719 P.2d 1058, 1064 (1986), discussed *infra* notes 185–90 and accompanying text.
161. Rodriguez v. Besser Co., 115 Ariz. 454, 565 P.2d 1315 (App. 1977).
162. *Id.* at 458, 565 P.2d at 1319.
163. *Id.*

made.[164] The plaintiff argued that the manufacturer had a duty to warn the owner of the danger created by the modification.[165] The court rejected this argument, stating,

> [w]e believe that extending a manufacturer's duty to warn to situations in which it is notified that a third party has modified its product, after the product has left its possession and control and without consultation or participation in the modification by the manufacturer, would place an intolerable burden on the manufacturer.[166]

The *Besser* court's failure to require the manufacturer to even warn an individual owner of a known danger suggests that Arizona would be hesitant to impose the more substantial duty to retrofit defective products in other situations.

*Alternative Analysis:*

The *Besser* holding may be limited to situations in which products are modified by third parties.[167] The court's failure to extend the post-sale duty to warn in the case of user modification is a function of the fact that the manufacturer did not create the risk. Therefore, Arizona might find that the manufacturer owes a greater duty in situations where a dangerous condition results solely from the manufacturer's negligence. This greater duty may include retrofitting the dangerous products.

*3. Imposing a duty to retrofit would conflict with the policy behind the inadmissibility of evidence of "subsequent remedial measures": A.R.S. section 12–686.*

A.R.S. section 12–686,[168] the Arizona products liability statute, prohibits in products liability actions:

> 1. Evidence of advancements or changes in the state of the art subsequent to the time the product was first sold by the defendant.
>
> 2. Evidence of any changes made in the design or methods of manufacturing or testing the product or any similar product subsequent to the time the product was first sold by the defendant.[169]

This statute has been interpreted to forbid evidence of post-sale, pre-injury design changes to prove a "defect" resulting from either negligent conduct or defective product quality in products liability actions.[170] The statute is consistent with the Arizona Rules of Evidence, which also state that evidence

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164. *Id.*
165. *Id.* The plaintiff cited Braniff Airways, Inc. v. Curtis–Wright Corp., 411 F.2d 451 (2d Cir. 1969), discussed *supra* notes 26–30 and accompanying text, and Noel v. United Aircraft Corp., 342 F.2d 232 (3d Cir. 1964) discussed *supra* notes 22–25 and accompanying text, in support of his argument. *Rodriguez*, 115 Ariz. at 459 n.3, 565 P.2d at 1320 n.3. The court distinguished these cases on the ground that they did not involve products designed and sold with functioning safety devices. *Id.* at 459–60, 565 P.2d at 1320–21.
166. *Rodriguez*, 115 Ariz. at 460, 565 P.2d at 1321.
167. *Id.*
168. ARIZ. REV. STAT. ANN. § 12–686 (1992).
169. *Id.*
170. Readenour v. Marion Power Shovel, 149 Ariz. 442, 448, 719 P.2d 1058, 1064 (1986).

of subsequent remedial measures is "not admissible to prove negligence or culpable conduct in connection with the event."[171]

The policy behind these rules is to encourage manufacturers to innovate by freeing them from concern that such steps may be used against them.[172] "The rationale...is that people in general would be less likely to take subsequent remedial measures if their repairs or improvements would be used against them in a lawsuit arising out of a prior accident. By excluding this evidence, defendants are encouraged to make such improvements."[173]

By requiring a manufacturer to implement newly discovered safety devices into products already on the market, the Arizona courts would stifle innovation.[174] Thus, imposing the *Hernandez*[175] technological improvement duty would conflict with Arizona's express judicial policy[176] of encouraging innovation.

*Alternative Analysis:*

Imposing a duty to retrofit a product would not discourage innovation. In fact, the imposition of such a duty would encourage innovation because it would provide manufacturers with an incentive to create products that are safe in reference to the current state of the art.

*4. Product recalls are properly the province of administrative agencies and the legislature.*

Both the Kansas Supreme Court and the Michigan Supreme Court relied heavily upon the argument that administrative agencies and the legislature would be the more appropriate bodies to require manufacturers to recall or retrofit.[177] Administrative agencies have the institutional resources to make fully informed assessments of the marginal benefits of recalling a specific product.[178] The cost of locating, recalling, and retrofitting mass-marketed products could be very large and would likely be spread to the consumer in the form of higher prices.[179] Thus, recall power should not be exercised without extensive consideration of the economic impact of the action. Administrative agencies can provide this consideration more adequately than the courts.[180] The

171. ARIZ. R. EVID. 407; *see Readenour*, 149 Ariz. at 442, 719 P.2d at 1058.
172. *Readenour*, 149 Ariz. at 445, 719 P.2d at 1061.
173. Hallmark v. Allied Prods. Corp., 132 Ariz. 434, 440, 646 P.2d 319, 325 (App. 1982). *See also* Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299, 1308 (Kan. 1993), discussed *supra* notes 38–57 and accompanying text.
174. *See* Schwartz, *supra* note 5, at 900–01.
175. Hernandez v. Badger Constr. Equip. Co., 34 Cal. Rptr. 2d 732 (Ct. App. 1994), *cert. denied*, 115 S. Ct. 1694 (1995), discussed *supra* notes 58–71 and accompanying text.
176. *Readenour*, 149 Ariz. at 445, 719 P.2d at 1061.
177. *See* Gregory v. Cincinnati Inc., 538 N.W.2d 325, 334–35 (Mich. 1995), discussed *supra* notes 72–118 and accompanying text; Patton v. Hutchinson Wil-Rich Mfg. Co., 861 P.2d 1299, 1315–16 (Kan. 1993), discussed *supra* notes 38–57 and accompanying text. "The decision to expand a manufacturer's post-sale duty beyond implementing reasonable efforts to warn ultimate consumers who purchased the product of discovered latent life-threatening hazards unforeseeable at the point of sale should be left to administrative agencies and the legislature." *Id.* at 1316.
178. Schwartz, *supra* note 5, at 901.
179. *Id.*
180. *Id.*

merit of this argument is evidenced by the existence of federal agencies designed specifically to handle product recalls.[181]

*Alternative Analysis:*

In light of the reliance placed on this argument by other jurisdictions, Arizona will undoubtedly consider it. In doing so, however, Arizona must consider economic realities. The fact that certain products are currently not covered by federal recall authority, namely large industrial machinery, may indicate that federal intervention in this area is inappropriate.[182] For example, where the cost of locating and repairing a dangerous product is not high because the number of products manufactured and sold is relatively few, a substantial increase in price will probably not be borne by consumers of these products.[183] Therefore, extensive consideration of economic impact by a specifically designated administrative agency would not be necessary.[184] The legislature may recognize that the courts are the more appropriate body to handle product recalls when the product is not one that is used by, and thus does not endanger, the general public.

### *B. Arguments in Favor of Extending Post-Sale Duties Beyond a Duty to Warn in Arizona*

#### *1. The Arizona Supreme Court has stated that, in some circumstances, it may recognize a manufacturer's post-sale duty to retrofit its products:* Readenour v. Marion Power Shovel.

Language in a 1986 Arizona Supreme Court decision expressly recognized that a manufacturer's post-sale obligations in Arizona could go beyond merely warning of its product's dangerous propensity:

> In a case in which the total number of products made and sold was so small, it is certainly permissible for the plaintiffs to argue that *if the manufacturer discovered an unreasonably dangerous condition at any time during the product's history* it was feasible that *it should either retrofit each of the models already sold* or warn each of the buyers of the existence of the latent danger.[185]

In this case, the Arizona Supreme Court explicitly recognized that a manufacturer's post-sale duty could include a duty to retrofit in some

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181. *See, e.g.*, 15 U.S.C. § 2064 (1994) (delegating recall authority for consumer products to the Consumer Product Safety Commission); 15 U.S.C. § 1414 (1994) (delegating recall authority for motor vehicles to the Secretary of Transportation); 21 U.S.C. § 360*ll* (1996) (delegating recall authority to the Secretary of Health and Human Services).

182. *See* MICHAEL RUSTAD, DEMYSTIFYING PUNITIVE DAMAGES IN PRODUCTS LIABILITY CASES: A SURVEY OF A QUARTER CENTURY OF TRIAL VERDICTS (1991). Professor Rustad states that many government regulatory agencies lack the necessary resources for proactive enforcement and depend upon industries to report regulation violations. *Id.* at 11. The argument follows that creating another regulatory agency would further strain governmental resources.

183. *C.f.* Schwartz, *supra* note 5, at 901 (stating that the decision to institute a recall campaign is better left to federal agencies because such agencies are better able to weigh the costs and benefits).

184. *Id.*

185. Readenour v. Marion Power Shovel, 149 Ariz. 442, 448, 719 P.2d 1058, 1064 (1986) (emphasis added).

circumstances.[186] At the very least, this language gives plaintiffs in Arizona a foothold for claiming a manufacturer negligent in not remedying a product upon learning of its dangerous propensity.

*Alternative Analysis:*

Perhaps one should not read this excerpt from *Readenour* too seriously. The language in the case concerning retrofitting was dicta.[187] The language has never been cited in any Arizona case. In addition, the language explicitly states that warning alone may be sufficient to satisfy a manufacturer's duty in such a situation.[188] Finally, the *Readenour* court held that evidence of subsequent remedial measures was inadmissible to prove a defective condition.[189] The court stated that the policy behind this rule was to encourage manufacturers to redesign products without the fear that the new design would be used against them.[190] Imposing a duty to retrofit based on language from a case which articulated a policy of encouraging innovation would be illogical.

*2. Arizona's allowance of punitive damages in products liability actions suggests that Arizona courts may be willing to impose a post-sale duty to retrofit.*

Just as the post-sale duty to warn has been cited to support punitive damage claims,[191] evidence of failing to recall or retrofit a product should be admissible to justify the imposition of punitive damages. In a footnote in *Gregory*,[192] the Supreme Court of Michigan stated that if punitive damages were available in Michigan, a duty to retrofit may be appropriate.[193] The *Gregory* court recognized that analyzing a manufacturer's conduct based on post-sale duties could be meritorious when the law allows recovery of punitive damages.[194] Therefore, in Arizona, where punitive damages are recoverable in products liability actions,[195] a recall and repair theory of liability has merit.[196]

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186. *Id.*
187. *Id.*
188. *Id.* (stating that the manufacturer should *either* retrofit or warn each of the buyers of the existence of the danger).
189. *Id.* at 445, 719 P.2d at 1061.
190. *Id.*
191. *See, e.g.*, Gillham v. Admiral Corp., 523 F.2d 102 (6th Cir. 1975), *cert. denied sub nom.*, Admiral Corp. v. Gillham, 424 U.S. 913 (1976); FRUMER & FRIEDMAN, *supra* note 6, § 12.12.
192. Gregory v. Cincinnati Inc., 538 N.W.2d 325, 333 n.25 (Mich. 1995).
193. *Id.* "Perhaps proof of such conduct would be relevant and necessary if punitive damages were available in Michigan, but that is not the case." *Id.* at 334 n.31. In support of this position, the *Gregory* court cited Reed v. Ford Motor Co., 679 F. Supp. 873 (S.D. Ind. 1988), in which a duty to recall was approved in order to prove recklessness for punitive damages purposes.
194. *Gregory*, 538 N.W.2d at 334 n.31.
195. *See, e.g.*, Volz v. Coleman Co., 155 Ariz. 567, 570, 748 P.2d 1191, 1194 (1987).
196. *See* RUSTAD, *supra* note 182. Professor Rustad notes that the central issue in three-quarters of punitive damages awards is either the manufacturer's post-sale failure to remedy a known danger or its failure to warn of a known danger. *Id.* at 10. "The manufacturer's 'failure to redesign or recall or reduce risk of a known danger' was the most important issue in 120 cases." *Id.* Many of the plaintiffs' attorneys described punitive damages awards as punishment for corporations that had "chosen profits over public safety." *Id.* at 11.

To obtain punitive damages in Arizona, a plaintiff must prove that the "defendant's evil hand was guided by an evil mind."[197] "Evil mind" may be shown by either (1) evil actions; (2) spiteful motives; or (3) outrageous, oppressive or intolerable conduct that creates substantial risk of tremendous harm to others.[198] A jury may infer an evil mind if the defendant deliberately continued his action despite the inevitability or high probability that harm would follow.[199] These requirements are very stringent and obtaining punitive damages in Arizona has proven difficult.[200] In *Volz v. Coleman Co.*,[201] for example, a stream of fuel ejected through the cap of a portable stove, crossed a campfire, ignited, and severely burned the plaintiff.[202] The plaintiff presented evidence that the manufacturer of the stove knew of similar incidents in which the cap had similarly malfunctioned.[203] Even after the cap was redesigned, several hundred thousand stoves possessing the allegedly defective caps remained on the market.[204] The manufacturer never issued warnings nor did it recall the stoves possessing the original caps.[205] The Arizona Supreme Court held that an instruction for punitive damages was not justified, despite the fact that the defendant continued to market the product after acquiring knowledge of its problems.[206]

*Alternative Analysis:*

A court unwilling to impose punitive damages in an instance where a manufacturer is fully aware of a defect in a product yet continues to market the product, as in *Volz*,[207] would arguably be unwilling to impose upon that manufacturer a duty to remedy the defect. If the policy underlying the high standard of proof of punitive damages is to avoid undue burden on manufacturers, the court may be unwilling to burden them by imposing substantial post-sale duties.

## VI. CONCLUSION

A manufacturer in Arizona will not have a duty to retrofit a product merely because a new safety device is created or becomes feasible after the product is already in the control of its user. Arizona's policy to encourage innovation and the general trend in most other jurisdictions denying such a duty dictate this conclusion.

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197. *Volz*, 155 Ariz. at 570, 748 P.2d at 1194 (quoting Rawlings v. Apodaca, 151 Ariz. 149, 162, 726 P.2d 565, 577 (1986)).
198. *Id.*
199. Piper v. Bear Medical Sys., Inc., 180 Ariz. 170, 180, 883 P.2d 407, 417 (App. 1993).
200. *Volz*, 155 Ariz. at 567, 748 P.2d at 1191.
201. *Id.*
202. *Id.* at 568, 748 P.2d at 1192.
203. *Id.* at 569–70, 748 P.2d at 1193–94.
204. *Id.* at 569, 748 P.2d at 1193.
205. *Id.*
206. *Id.* at 571, 748 P.2d at 1195; *see also* Piper v. Bear Medical Sys., Inc., 180 Ariz. 170, 180, 883 P.2d 407, 417 (App. 1993) (noting that the defendant in *Volz* did not issue warnings or institute a recall campaign).
207. Volz v. Coleman Co., 155 Ariz. 567, 748 P.2d 1191 (1987).

In certain circumstances an Arizona court may hold that a duty to retrofit exists. For example, when the number of products sold is few, the locations of the products are within the knowledge of the manufacturer, the potential danger is severe, the cost of retrofitting is slight, and the manufacturer can reasonably foresee that alternative measures such as warnings would be ineffective, a manufacturer may have a duty to retrofit.

A breach of the duty to retrofit, if caused by sufficiently egregious misconduct, may result in punitive damages. Even if a manufacturer's conduct does not warrant punitive damages, the presentation of evidence regarding the manufacturer's failure to retrofit may increase both the likelihood of a verdict in favor of the plaintiff and the amount of the award.