

ST. MARY'S LAW JOURNAL

VOLUME 37

2006

NUMBER 2

ARTICLES

GETTING THE SAND OUT OF THE EYES OF THE LAW: THE NEED FOR A CLEAR RULE FOR SAND SUPPLIERS IN TEXAS AFTER *HUMBLE SAND & GRAVEL, INC. v. GOMEZ*

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† Support for the preparation of this Article was provided in part by companies that have an interest in silica and other mass tort litigations. The views expressed are strictly those of the authors.

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I. INTRODUCTION

Silica—quartz in its most common form—is a natural substance. It is the primary component of sand on the beach and “has many uses from filling gardens and lawns to mixing with concrete to filling sandboxes.”¹ Silica in its natural form is not harmful, but when fragmented into tiny particles it can be dangerous when inhaled.² For example, in abrasive blasting, commonly referred to as sandblasting, and in foundry operations, silica particles can be broken up and freely inhaled unless proper precautions are taken. Inhaled silica particles may be trapped in the lungs and lead to a disease called silicosis.³ “[W]orkers in dusty trades are at the greatest risk of silicosis from [occupational] exposure to crystalline silica.”⁴

Health risks associated with the inhalation of “silica dust have been well known for a very long time.”⁵ As early as the Fourth Century B.C., Hippocrates observed the link between respiratory disease and mining and stonemasonry work.⁶ Agricola’s Sixteenth-Century treatise on mining demonstrated that scholars recognized that silica dust “penetrates into the windpipe and lungs, and produces difficulty breathing” after being “stirred and beaten up by

1. *Damond v. Avondale Indus., Inc.*, 718 So. 2d 551, 552 (La. Ct. App. 1998). “[S]ilica comprises more than one quarter of the earth’s crust and is the major component in ninety-five percent of the earth’s rocks.” Linda Regis, Comment, *From the Sandbox to Sandblasting: Regulation of Crystalline Silica*, 17 PACE ENVTL. L. REV. 207, 227 (1999); see also BRANCH OF INDUSTRIAL MINERALS, U.S. BUREAU OF MINES & U.S. DEP’T OF THE INTERIOR, CRYSTALLINE SILICA PRIMER 5 (Special Publication 1992) (explaining that silica is “one of the building blocks of our planet”).

2. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 173-74 (Tex. 2004).

3. See David Weill, *Silica and Asbestos: Similarities and Differences from a Medical Perspective*, 3-2 MEALEY’S LITIG. REP.: SILICA 21, Oct. 22, 2004 (“Silicosis results when sufficient amounts of respirable crystalline silica—generally particles of less than 10 micrometers in size—are inhaled and become deposited in the lungs after overwhelming the lung defense system.”).

4. Linda Regis, Comment, *From the Sandbox to Sandblasting: Regulation of Crystalline Silica*, 17 PACE ENVTL. L. REV. 201, 209 (1999).

5. *Gomez*, 146 S.W.3d at 174; accord *Dresser Indus., Inc. v. Lee*, 880 S.W.2d 750, 751 (Tex. 1993) (stating that the risk that silica exposure may cause respiratory disease “has been recognized for more than a century”); see also *Phillips v. A-Best Prods.*, 665 A.2d 1167, 1169-70 n.2 (Pa. 1995) (stating that “[f]or more than half a century, exposure to silica sand has been linked with the development of silicosis, a disease which causes scarring of the lungs”); *Tex. Employers’ Ins. Ass’n v. Etheredge*, 154 Tex. 1, 272 S.W.2d 869, 872-73 (1954) (describing silicosis and its development).

6. *Gomez*, 146 S.W.3d at 174.

digging.”⁷ Furthermore, the first treatise on occupational disease, *De Morbis Artificum*, written in 1700, identified “silicosis as a pneumoconiosis (‘a disease of the lungs caused by the habitual inhalation of irritant . . . particles’) common to stonemasons.”⁸

In the United States, the American Foundrymen’s Society has distributed literature addressing silica exposure and other foundry hazards to its members for over 100 years.⁹ In 1908, the U.S. Bureau of Labor recognized the health risks of dust for hard-rock miners, stonecutters, potters, glass workers, sandblasters, and foundry workers.¹⁰ Then, in 1936, national awareness of the hazards of silica exposure increased dramatically when nearly 1,000 miners died near Gauley Bridge, West Virginia, after digging a tunnel “three miles through rock formations rich in silica” to build a hydroelectric facility.¹¹ The “Hawk’s Nest Tunnel” incident is still considered America’s worst industrial disaster.¹²

The Department of Labor’s first National Silicosis Conference featured the film “Stop Silicosis,” which described how to protect workers from overexposure to silica.¹³ The Conference culminated in a 1937 report that “directly addressed silicosis prevention in industrial settings, recommending measures for employers to take on

7. See Thomas A. Gilligan, Jr., *Silica Litigation from Both Sides of the Bar: Is Silica the Next Asbestos? The Defendants’ Perspective*, 1-5 MEALEY’S LITIG. REP.: SILICA 20, Jan. 2003 (discussing historically reported health hazards).

8. See *Gomez*, 146 S.W.3d at 174 (citing WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1746 (1961)).

9. See *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 557, 562 (W.D. Va. 1984) (stating that “[t]he American Foundrymen’s Society . . . is an international technical organization comprised of individuals and businesses that is dedicated to the creation and dissemination of technical information related to the foundry industry”), *aff’d sub nom. Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985).

10. See Thomas A. Gilligan, Jr., *Silica Litigation from Both Sides of the Bar: Is Silica the Next Asbestos? The Defendants’ Perspective*, 1-5 MEALEY’S LITIG. REP.: SILICA 20, Jan. 2003 (citing U.S. BUREAU OF LABOR, BULL. NO. 79: THE MORTALITY FROM CONSUMPTION IN DUSTY TRADES 633-875 (1908)).

11. *Gomez*, 146 S.W.3d at 174.

12. See *id.* at 174 (describing the impact of the disaster); see also HENRY N. DOYLE, THE FEDERAL INDUSTRIAL HYGIENE AGENCY: A HISTORY OF THE DIVISION OF OCCUPATIONAL HEALTH, U.S. PUB. HEALTH SERV. (undated) (discussing other incidents including a 1910 investigation among lead miners near Joplin, Missouri, and a series of studies on Vermont granite workers from the 1920s to the 1950s) (on file with the *St. Mary’s Law Journal*).

13. See *Haase v. Badger Mining Corp.*, 669 N.W.2d 737, 744 n.2 (Wis. Ct. App. 2003) (describing the film and establishing other measures to prevent silicosis), *aff’d*, 682 N.W.2d 389 (Wis. 2004).

behalf of their workers.”¹⁴ In 1938, the American National Standards Institute adopted safety standards “calling for the use of respirators in abrasive blasting.”¹⁵ As far back as 1949, the United States Supreme Court noted that “[i]t is a matter of common knowledge that it is injurious to the lungs and dangerous to health to work in silica dust.”¹⁶

Since 1971, the Department of Labor’s Occupational Safety & Health Administration (OSHA) has set a permissible exposure limit (PEL) for occupational exposure to airborne silica.¹⁷ In 1974, OSHA applied extensive abrasive blasting safety regulations enacted for government contractors in the 1960s under the Walsh-Healy Act¹⁸ to all employers,¹⁹ and adopted standards for working with silica in the construction and maritime industries.²⁰ OSHA

14. *See id.* (noting that “[a]mong the recommendations were workplace surveys, compliance with laws and regulations, respiratory protection and employee safety training”).

15. *Gomez*, 146 S.W.3d at 175. The American National Standards Institute (ANSI) is a consensus group of various industry participants, including manufacturers, suppliers, employers, unions, and customers. *See* Abstract, Am. Nat’l Standards Inst., Am. Nat’l Standard for Respiratory Prot., ANSI Z88.2, <http://retail.ihc.com/abstracts/ansi/ansi-z882.jsp> (last visited Oct. 25, 2005) (showing that the current ANSI Standard Z88.2 sets forth accepted practices for employers regarding the proper selection and use of respirators to protect workers from airborne contaminants in the workplace) (on file with the *St. Mary’s Law Journal*).

16. *Urie v. Thompson*, 337 U.S. 163, 180 (1949) (quoting *Sadowski v. Long Island R.R.*, 55 N.E.2d 497, 500-01 (N.Y. 1944)).

17. *See Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 975 n.6 (N.D. Iowa 2002) (citing 29 C.F.R. § 1910.1000 (2001)) (stating that OSHA established in 1972 the PEL of “1 milligrams per cubic meter over a time weighted average of eight hours” for silica), *aff’d*, 319 F.3d 350 (8th Cir. 2003). The National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) have proposed even more stringent recommended exposure limits (REL) for silica. *See* Linda Regis, Comment, *From the Sandbox to Sandblasting: Regulation of Crystalline Silica*, 17 PACE ENVTL. L. REV. 207, 210-11 (1999) (citing U.S.C.A. § 655(b)(1) (West 1998)) (comparing the more stringent exposure limit established by NIOSH of .05 milligrams per cubic meter over a time weighted average of eight hours with the PEL of .1 milligrams per cubic meter over a time weighted average of eight hours that OSHA promulgated); *see also* NAT’L INST. FOR OCCUPATIONAL SAFETY & HEALTH, CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., PUBL’N NO. 2001-129, HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA app. at tbl. A-1 (2002), available at <http://www.cdc.gov/niosh-02-129pd.html> (providing a comparison of PEL and REL for crystalline silica).

18. 41 U.S.C. §§ 35-45 (1936).

19. *See Gomez*, 146 S.W.3d at 175 (noting the codification of 29 C.F.R. § 1910.94(a)(5)(ii) (1974) and other regulations imposed by OSHA in the 1970s).

20. *See* 29 C.F.R. § 1910.1000(c) (2004) (establishing the PEL of silica for occupational contact and creating a table outlining the limits for silica exposure).

regulations for abrasive blasting require employers to properly select, use, clean, store, inspect, and maintain respirators; to instruct employees in their proper use and limitations; to conduct frequent random inspections to assure their proper selection, use, cleaning, and maintenance; and to provide high-purity breathing air in air-fed hood respirators.²¹ OSHA regulations also require employers to develop and implement comprehensive hazard communication programs that include material safety data sheets, labels, and training to inform employees about hazardous substances in the workplace and the means of avoiding those hazards.²² The purpose of hazard communication training is to explain and reinforce the information presented to employees through the written labels and material safety data sheets, and to apply this information in the workplace.²³ In addition, the Federal Occupational Safety and Health Act specifically requires each employer to furnish its employees with a place of employment that is free from recognized hazards that cause, or are likely to cause, death or serious physical harm.²⁴

For years, litigation against industrial sand manufacturers and other industrial mineral companies, respirator (dust mask) makers, and related safety equipment manufacturers concerning silica exposure was stable, "with only a low number of people pursuing silica claims" each year.²⁵ Recently, however, there has been a marked increase in the number of silica lawsuits.²⁶ "One large in-

21. See *id.* § 1910.134(c)(1) (2004) (listing the specific procedures that employers must establish and implement as part of their required respiratory protection programs).

22. See *id.* § 1910.1200(a) (2004) (defining the purpose of development and implementation of hazard communication programs). Federal regulations also require sand suppliers to provide their customers with a Material Safety Data Sheet that includes "[a]ny generally applicable precautions for safe handling and use which are known to the chemical manufacturer" and "[a]ny generally applicable control measures which are known to the chemical manufacturer, . . . such as appropriate engineering controls, work practices, or personal protective equipment." *Id.* § 1910.1200(g)(2)(viii)-(ix) (2004).

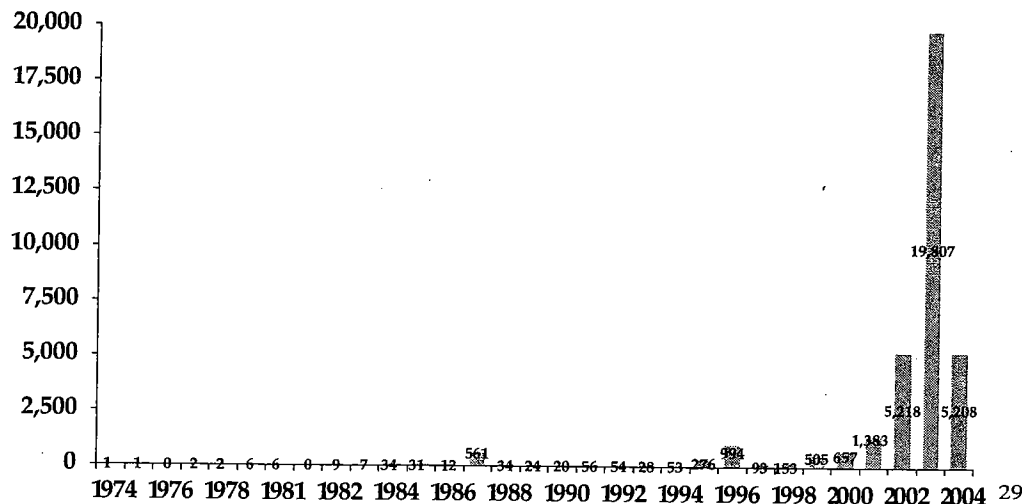
23. See *id.* § 1910.1200(h) (2004) (requiring specific employee information and training guidelines to be used by employers when hazardous chemicals are involved in the workplace).

24. See 29 U.S.C. § 651(b) (2004) (mandating the creation of occupational health and safety standards and providing for medical criteria to ensure safe and healthy working conditions).

25. Mark A. Behrens et al., Commentary, *Silica: An Overview of Exposure and Litigation in the United States*, 20-2 MEALEY'S LITIG. REP.: ASBESTOS 4, Feb. 21, 2005.

26. See Kelly Barron, *Bonanza or Boondoggle? Plaintiffs' Lawyers Hope Silica Dust Could Be the Next Asbestos*, CRAIN'S CHI. BUS., Feb. 28, 2005, at 35, available at 2005

insurance company is handling more than 25,000 silica claims in twenty-eight states—a tenfold rise from August of 2002.”²⁷ E.D. Bullard Company, the inventor of the hard hat and a maker of respirators, has seen a similar jump in claims since 2002: 62 cases with 200 plaintiffs in 1999; 156 cases with 4305 plaintiffs in 2002; and 643 cases with 17,288 plaintiffs in 2003.²⁸ Sand suppliers are experiencing the same trend, as illustrated in the chart below.



WLNR 3322581 (explaining that the inhalation of silica dust particles has led to explosive silica litigation and approximately 17,000 silica suits were filed in the first half of 2003); Jonathan D. Glater, *Suits on Silica Being Compared to Asbestos Cases*, N.Y. TIMES, Sept. 6, 2003, at C1, available at 2003 WLNR 5662921 (reporting that the recent increase in the number of silica related lawsuits has begun to cause concern among insurance companies); Patti Waldmeir, *The Americas: Business Fears Silica Lawsuits Could Wreak Same Havoc As Asbestosis*, FIN. TIMES U.S.A., Feb. 2, 2005, at 3, available at 2005 WLNR 1400086 (noting that “silica suits have skyrocketed recently in response to tort reform measures at the state and federal level”).

27. Mark A. Behrens et al., Commentary, *Silica: An Overview of Exposure and Litigation in the United States*, 20-2 MEALEY’S LITIG. REP.: ASBESTOS 4, Feb. 21, 2005; see also Susan Warren, *Silicosis Suits Rise Like Dust/Lawyers in Asbestos Cases Target Many of the Same Companies*, WALL ST. J., Sept. 4, 2003, at B5 (asserting that insurance companies are beginning to see large increases in the number of silica claims).

28. See Susanne Sclafane, *Silica Dust: The Next Asbestos? Hard Hat Maker with Former RIMS President Among 160 Defendants Facing Dust Claims*, 108-18 NAT’L UNDERWRITER PROP. & CASUALTY-RISK & BENEFITS MGMT., May 10, 2004, available at 2004 WLNR 14746125 (discussing the noted increase in the number of silica suits filed by plaintiffs in 2003); see also Bob Sherwood, *Weighing the Risk from Food and Phones*, FIN. TIMES LONDON, Apr. 28, 2003, at 12, available at 2003 WLNR 8136508 (stating that “[s]ilicosis claims [in the United States] are climbing at such a rate that one company has 17,000 suits against it—and it just makes masks designed to protect people from silica dust”).

29. Mark A. Behrens et al., Commentary, *Silica: An Overview of Exposure and Litigation in the United States*, 20-2 MEALEY’S LITIG. REP.: ASBESTOS 4, Feb. 21, 2005.

It appears that plaintiffs' attorneys are manufacturing silica claims by using the same lawsuit-generating devices developed in the asbestos context.³⁰ These tactics "include plaintiff recruitment through direct mailings, the use of marketing firms to develop 'inventories', free mass screenings, mobile x-ray vans, and Internet websites."³¹ "Screenings of potential silica plaintiffs by plaintiffs' law firms and their agents have increased 'immeasurably' during the past few years."³²

"Most commentators point to pending legislative efforts relating to asbestos litigation, tort-reform initiatives in Mississippi and Texas, and the use of mass screenings as the reason silicosis 'victims' have seemingly emerged from the woodwork."³³ Some law-

30. *Id.*; accord Thomas A. Gilligan, Jr., *Silica Litigation from Both Sides of the Bar: Is Silica the Next Asbestos? The Defendants' Perspective*, 1-5 MEALEY'S LITIG. REP.: SILICA 19, Jan. 2003 (cautioning that plaintiffs' attorneys may effortlessly transform asbestos litigation trends into silica litigation due to the marked similarities between the two); see also Jonathan D. Glater, *The Tort Wars, at a Turning Point*, N.Y. TIMES, Oct. 9, 2005, at C1, available at 2005 WLNR 16361092 (analogizing silica litigation with traditional asbestos wisdom); Judyth Pendell, *Regulating Attorney-Funded Mass Medical Screenings: A Public Health Imperative?*, (AEI-Brookings Joint Center for Regulatory Studies), Sept. 2005, at 3, available at <http://www.aei-brookings.org/admin/authorpdfs/page.php?id=1193> (explaining the link between increases in silica and abestosis cases to attorney-funded mass screenings).

31. Mark A. Behrens et al., Commentary, *Silica: An Overview of Exposure and Litigation in the United States*, 20-2 MEALEY'S LITIG. REP.: ASBESTOS 6, Feb. 21, 2005; see also Sue Reisinger, *Mounting Silica Suits Pose New Threat to Industrial Companies*, CORP. LEGAL TIMES, at 64, Mar. 2003 (explaining "potential plaintiffs could include families of workers and people who lived or worked near silica sites"); Judyth Pendell, *Regulating Attorney-Funded Mass Medical Screenings: A Public Health Imperative?*, (AEI-Brookings Joint Center for Regulatory Studies) Sept. 2005, at 5-7, available at <http://www.aei-brookings.org/admin/authorpdfs/page.php?id=1193> (discussing the tactics employed by plaintiffs' attorneys).

32. Mark A. Behrens et al., Commentary, *Silica: An Overview of Exposure and Litigation in the United States*, 20-2 MEALEY'S LITIG. REP.: ASBESTOS, 6, Feb. 21, 2005; accord Lester Brickman, *On the Theory Class's Theories of Asbestos Litigation: The Disconnect Between Scholarship and Reality*, 31 PEPP. L. REV. 33, 62-97 (2003) (describing mass screening procedures used by plaintiffs' lawyers to generate clients and the related financial incentives).

33. Roy T. Atwood et al., Commentary, *In Silica Litigation, The Numbers Alone Dictate Careful Scrutiny of Injury and Causation*, 26-2 ANDREWS ASBESTOS LITIG. REP. 12, Dec. 4, 2003; see also *Asbestos: The Mixed Dust and FELA Issues: Hearing Before the S. Comm. on the Judiciary*, 109th Cong. (2005) (statement of Lester Brickman, Professor, Benjamin N. Cardozo School of Law of Yeshiva University), available at http://judiciary.senate.gov/print_testimony.cfm?id=1362&wit_id=3963 (describing mass screenings in asbestos and silica cases); Gilbert S. Keteltas, *Learning the Lessons of Asbestos: Courts and Defendants Can Do Better in the Case of Silica*, 26-6 ANDREWS ASBESTOS LITIG. REP. 9,

yers are even filing asbestos “re-tread” cases—bringing silica lawsuits on behalf of people who have already received an asbestos-related recovery.³⁴ As the *National Law Journal* reported in February 2005: “One of the most explosive revelations that has emerged from the [federal silica multidistrict litigation (MDL) proceeding] is that at least half of the approximately 10,000 plaintiffs in the silica MDL had previously filed asbestos claims.”³⁵

In June 2005, the manager of the federal silica docket, U.S. District Court Judge Janis Graham Jack of the Southern District of Texas, issued a scathing, lengthy opinion in which she recommended that all but one of the 10,000 claims on the MDL docket should be dismissed on remand because the diagnoses were fraudulently prepared.³⁶ “[T]hese diagnoses were driven by neither

Jan. 15, 2004 (stating that limits on asbestos litigation have led to screening and recruiting of silica claimants); Susan Warren, *Silicosis Suits Rise Like Dust: Lawyers in Asbestos Cases Target Many of the Same Companies*, WALL ST. J., Sept. 4, 2003, at B5 (indicating that silica plaintiffs’ attorneys are mapping out litigation plans similar to those used in asbestos cases).

34. See Jonathan D. Glater, *Asbestos Claims Decline, but Questions Rise*, N.Y. TIMES, Apr. 6, 2005, at C1, available at 2005 WLNR 5343368 (“The details of the diagnoses underlying some silica claimants are striking. Some of the same doctors who diagnosed silicosis in claimants had previously found asbestosis—another disease, which doctors said was typically characterized by different scarring of a different part of the lungs in the people they examined.”). “Suffering from both asbestosis and silicosis is, statistically speaking, nearly impossible.” Carolyn Kolker, *Spreading the Blame*, AM. LAW., Oct. 2005, at 24, 25. Responding to an accusation by a federal judge that silica claims were brought on behalf of previous asbestosis claimants, one lawyer asserted that he “‘doubt[ed]’ his clients’ asbestosis diagnoses.” *Id.* at 25.

35. David Hechler, *Silica Plaintiffs Suffer Setbacks: Broad Effects Seen in Fraud Allegations*, NAT’L L.J., Feb. 28, 2005, at 18; see also Jonathan D. Glater, *Companies Get Weapon in Injury Suits; Many Silica-Damage Plaintiffs Also Filed Claims over Asbestos*, N.Y. TIMES, Feb. 2, 2005, at C1, available at 2005 WLNR 1415209 (reporting that of the 8629 silicosis plaintiffs, 5174 had already filed asbestos claims); Jerry Mitchell, *Silicosis Screening Process Irks Judge*, CLARION-LEDGER, Mar. 6, 2005, at A1, available at 2005 WLNR 3546204 (explaining that U.S. District Judge Janis Graham Jack used the word “fraudulent” to describe the process that led to the diagnosis of many of the MDL plaintiffs); Roger Parloff, *Diagnosing for Dollars*, FORTUNE, June 13, 2005, at 96 (stating that nearly 60% of people in federal silica MDL proceedings have previously filed asbestos-related claims). Furthermore, asbestos personal injury lawyer Steve Kazan of Oakland, California, has said, “[t]he whole thing is somewhere between shameless and shameful.” Justin Scheck, *Critics Sandblast Local Silicosis Suits*, RECORDER, Apr. 1, 2005, at 1, 7.

36. *In re Silica Prods. Liab. Litig.*, No. MDL 1553, 2005 WL 1593936, at *60 (S.D. Tex. June 30, 2005) (addressing subject matter jurisdiction, expert testimony, and sanctions).

health nor justice," Judge Jack said in her opinion.³⁷ "[T]hey were manufactured for money."³⁸ As Judge Jack appreciated:

This explosion in the number of silicosis claims in Mississippi suggests . . . perhaps the worst industrial disaster in recorded world history.

And yet, these claims do not look anything like what one would expect from an industrial disaster. . . . The claims do not involve a single worksite or area, but instead represent hundreds of worksites scattered throughout the state of Mississippi, a state whose silicosis mortality rate is among the lowest in the nation.

Moreover, given the sheer volume of claims—each supported by a silicosis diagnosis by a physician—one would expect the CDC or NIOSH to be involved. . . . One would expect local health departments and physicians groups to be mobilized. One would expect a flurry of articles and attention from the media, such as what occurred in 2003 with SARS.

But none of these things have happened. There has been no response from OSHA, the CDC, NIOSH or the American Medical Association to this sudden, unprecedented onslaught of silicosis cases. . . . Likewise, Mississippi's silicosis epidemic has been greeted with silence by the media, the public, Congress and the scientific communities.

In short, this appears to be a phantom epidemic. . . .³⁹

Indeed, the federal government reports that silica-related deaths have declined dramatically.⁴⁰ According to the National Institute for Occupational Safety and Health (NIOSH) and the U.S. Centers

37. *Id.*

38. *Id.*

39. *Id.* at *5; see also Mike Tolson, *Attorneys Behind Silicosis Suits Draw U.S. Judge's Wrath; Houston Legal Firm Fined; Order from Bench Says Diagnoses Made for the Money*, HOUS. CHRON., July 2, 2005, at A1 (reporting on the stunning rebuke given by a Corpus Christi federal judge to the plaintiffs' lawyers); Editorial, *The Silicosis Sheriff*, WALL ST. J., July 14, 2005, at A10 (supporting Judge Jack's decision to "put the brakes on the silicosis machine"). The U.S. Attorney's Office in the Southern District of New York has convened a federal grand jury to consider possible criminal charges arising out of the federal silica litigation. See Jonathan D. Glater, *Civil Suits over Silica in Texas Become a Criminal Matter in New York*, N.Y. TIMES, May 18, 2005, at C5, available at 2005 WLNR 7826957 (describing federal criminal charges before a Manhattan federal grand jury).

40. See NAT'L INST. FOR OCCUPATIONAL SAFETY & HEALTH, CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP'T OF HEALTH & HUMAN SERVS., PUBL'N No. 2003-111, WORK RELATED LUNG DISEASE SURVEILLANCE REPORT 54 tbl. 3-1 (2002) (displaying the number of silicosis deaths from 1990 to 1999).

for Disease Control and Prevention (CDC), the number of silica-related deaths dropped from 1,157 in 1968, to 448 in 1980, to 308 in 1990, to 187 in 1999, and to 148 in 2002.⁴¹ To put these figures into context, the CDC reports that, on average, 400 people in the United States die each year from extreme heat,⁴² and the Bureau of Labor Statistics reports that 671 workers die annually from falls “to [a] lower level.”⁴³ A recent study by OSHA staff found that “a downward trend in the airborne silica exposure levels was observed during 1988-2003.”⁴⁴

Notwithstanding the suspect nature of many current silica claims, the dramatic increase in silica lawsuits will mean that more courts will be asked to decide silica cases. In fact, several state supreme courts have recently issued such opinions.⁴⁵ This Article will focus on one of those opinions, the Texas Supreme Court’s 2004 decision in *Humble Sand & Gravel, Inc. v. Gomez*,⁴⁶ where the court considered whether industrial sand suppliers have a duty to warn their

41. See NAT’L INST. FOR OCCUPATIONAL SAFETY & HEALTH, CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., PUBL’N NO. 2004-146, WORKER HEALTH CHARTBOOK 169 (2004), available at <http://www.cdc.gov/niosh/docs/chartbook/> (reporting the number of silicosis deaths); CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., *Silicosis Mortality, Prevention, and Control – United States, 1968-2002*, MMWR WKLY. 401, 401-05 (Apr. 29, 2005), <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5416a2.htm> (addressing the trends of silicosis) (on file with the *St. Mary’s Law Journal*).

42. See CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., EXTREME HEAT, <http://www.bt.cdc.gov/disasters/extremeheat/about.asp> (last visited Oct. 25, 2005) (reporting extreme heat deaths in the United States) (on file with the *St. Mary’s Law Journal*).

43. See BUREAU OF LABOR STATISTICS, U.S. DEP’T OF LABOR, CENSUS OF FATAL OCCUPATIONAL INJURIES DATA 1992-2002, <http://data.bls.gov/cgi-bin/surveymost?cf> (outlining fatal occupational injuries and stating the number of fatal lower level falls) (on file with the *St. Mary’s Law Journal*).

44. See A.S. Yassin et al., *Occupational Exposure to Crystalline Silica Dust in the United States, 1988-2003*, 113 ENVTL. HEALTH PERSPS. 3255 (2005), available at 2005 WLNR 5475971 (researching the trend of silica exposure throughout several years).

45. See, e.g., *Gray v. Badger Mining Corp.*, 676 N.W.2d 268, 280 (Minn. 2004) (holding that genuine issues of material fact existed as to whether a bulk supplier’s warning was adequate); *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 174 (Tex. 2004) (addressing a silica flint supplier’s duty to warn abrasive blasting operators); *Haase v. Badger Mining Corp.*, 682 N.W.2d 389, 398 (Wis. 2004) (holding that a supplier of silica sand was not strictly liable based on the facts of the case).

46. 146 S.W.3d 170 (Tex. 2004).

customers' employees about the hazards of occupational exposure to silica.⁴⁷

This Article first discusses traditional tort law principles applicable to sand suppliers. It then considers the Texas Supreme Court's holding in *Gomez* and demonstrates that, under the factors outlined by the court, sand suppliers should not be found liable in Texas for harm to their customers' employees. Finally, this Article suggests that courts in other states should decline to adopt *Gomez*, because the Texas Supreme Court's holding is unsound in that it undermines incentives for safety in the workplace and creates the potential for needless and costly litigation. This Article argues that courts in other states should instead adopt a bright-line rule and hold that suppliers do not have a duty to warn their customers' employees about the well-known hazards of silica exposure.

II. LEGAL DUTIES OF SAND SUPPLIERS

Tort law recognizes several potential defenses that may obviate or discharge a sand supplier's duty to warn about the well-known risks of silica exposure. Among these are the "sophisticated user" and "bulk supplier" doctrines and the "substantial change in condition" defense.⁴⁸ Each defense has slightly different features, and there is considerable overlap between them, but all are consistent with one of the cornerstone principles of product liability law: "to place the incentive for loss prevention on the party or parties who are best able to accomplish [the] goal."⁴⁹

47. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 172-73 (Tex. 2004); see also *U.S. Silica Co. v. Tompkins*, 156 S.W.3d 578, 579 (Tex. 2005) (remanding the case to the trial court for further proceedings in light of *Gomez*).

48. Support also exists for application of the "learned intermediary" doctrine to industrial environments. See Carole A. Cheney, Comment, *Not Just for Doctors: Applying the Learned Intermediary Doctrine to the Relationship Between Chemical Manufacturers, Industrial Employers, and Employees*, 85 Nw. U. L. REV. 562, 588-606 (1991) (supporting the application of the "learned intermediary" doctrine to industrial environments). In addition, the Restatement (Third) of Torts: Products Liability provides a defense for risks posed by the integration of raw materials such as sand into products. See RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 5 cmt. c (1998) (illustrating that a sand supplier has no duty to warn purchasers about the risks of improperly mixing sand for use in cement).

49. Model Uniform Products Liability Act, 44 Fed. Reg. 62,714, 62,714-15 (Oct. 31, 1979).

A. *Sophisticated User*

The “sophisticated user” doctrine is embodied in section 388(b) of the Restatement (Second) of Torts.⁵⁰ Section 388 states:

One who supplies directly or through a third person a chattel for another to use is subject to liability to those whom the supplier should expect to use the chattel . . . for physical harm caused by the use of the chattel . . . if the supplier

- (a) knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied, and
- (b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and
- (c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.⁵¹

Under the “sophisticated user” doctrine, “there is no duty to warn if the user knows or should know of the potential danger, especially when the user is a professional who should be aware of the characteristics of the product.”⁵² As the United States Court of Appeals for the Eighth Circuit recognized, the “sophisticated user [doctrine] is no more than an expression of common sense as to why a party should not be liable when no warnings or inadequate warnings are given to one who already knows or could reasonably have been expected to know of [a product’s] dangers.”⁵³

Section 388 acknowledges that products often do not pass directly from the supplier to the end user, but, instead, pass through one or more intermediary users (e.g., wholesalers, distributors, re-

50. See Richard C. Ausness, *Learned Intermediaries and Sophisticated Users: Encouraging the Use of Intermediaries to Transmit Product Safety Information*, 46 SYRACUSE L. REV. 1185, 1200-24 (1996) (explaining the “sophisticated user” doctrine).

51. RESTATEMENT (SECOND) OF TORTS § 388 (1965).

52. *Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 977 (N.D. Iowa 2002) (quoting *Strong v. E.I. DuPont de Nemours Co.*, 667 F.2d 682, 687 (8th Cir. 1981)), *aff’d*, 319 F.3d 350 (8th Cir. 2003); see also Kenneth M. Willner, Note, *Failures to Warn and the Sophisticated User Defense*, 74 VA. L. REV. 579, 587-96 (1988) (discussing the “sophisticated user” defense and the different approaches taken by courts when applying this defense).

53. *Crook v. Kanab Pipe Line Operating P’ship*, 231 F.3d 1098, 1102 (8th Cir. 2002) (applying Nebraska law); see also *O’Neal v. Celanese Corp.*, 10 F.3d 249, 251 (4th Cir. 1993) (applying Maryland law and stating that “if the danger . . . is clearly known to the purchaser/employer, then there will be no obligation to warn placed upon the supplier. . . . Stated another way, when the supplier has reason to believe that the purchaser . . . will recognize the danger[s] associated with the product, no warnings are mandated.” (quoting *Kennedy v. Mobay Corp.*, 579 A.2d 1191, 1196 (Md. Ct. Spec. App. 1990))).

tailers, and employers) before reaching the end user.⁵⁴ Comment n to section 388 and its companion, comment i to section 2(c) of the Restatement (Third) of Torts: Products Liability, delineate the circumstances in which a seller is justified in relying on an intermediary to communicate potential hazards to end users.⁵⁵ These factors include:

- (1) the dangerous condition of the product; (2) the purpose for which the product is used; (3) the form of any warnings given; (4) the reliability of the third party as a conduit of necessary information about the product; (5) the magnitude of the risk involved; and (6) the burdens imposed on the supplier by requiring that he directly warn all users.⁵⁶

Many courts have focused on other language in Comment n which states: "Modern life would be intolerable unless one were permitted to rely to a certain extent on others doing what they normally do, particularly if it is their duty to do so."⁵⁷ These courts have recognized that the well-known risks of silica exposure obviate a sand supplier's duty to warn about those risks.⁵⁸

54. See *Singleton v. Manitowoc Co.*, 727 F. Supp. 217, 226 (D. Md. 1989) (concluding that a crane manufacturer could rely on the plaintiff's employer to recognize the risks of operating a crane and warn employees about those risks because the employer was "a knowledgeable, industrial user of cranes").

55. See RESTATEMENT (SECOND) OF TORTS § 388 cmt. n (1965) (describing the factors to be considered in a seller's reliance on a third party to advise the end user of possible dangers). "The Restatement, Second, of Torts § 388, Comment n, utilizes the same factors set forth in Comment i [to section 2(c) of the Restatement (Third) of Torts: Products Liability § 2(c)] in deciding whether a warning should be given directly to third persons." RESTATEMENT (THIRD) TORTS: PRODUCTS LIABILITY § 2(c) cmt. i.5 (1998).

56. *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 557 (W.D. Va. 1984), *aff'd sub nom.* *Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985); see also RESTATEMENT (SECOND) OF TORTS § 388 cmt. n (1965) (explaining when a seller may rely on an intermediary to warn end users).

57. RESTATEMENT (SECOND) OF TORTS § 388 cmt. n (1965).

58. See *Smith v. Walter C. Best, Inc.*, 927 F.2d 736, 741 (3d Cir. 1990) (holding that under Ohio law a supplier of sand could rely on the buyer, as a sophisticated user, to warn the buyer's employees about the hazards of working with sand); *Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 979-80 (N.D. Iowa 2002) (dismissing the complaint of a worker against the corporation which supplied the sand to the worker's employer because the employer was a sophisticated user; therefore the supplier owed no duty to warn the worker), *aff'd*, 319 F.3d 350 (8th Cir. 2003); *Goodbar*, 591 F. Supp. at 567 (applying Virginia law to determine that suppliers of silica products did not have a duty to warn the purchaser's employees about the occupational hazards of working with silica products); *Cowart v. Avondale Indus.*, 792 So. 2d 73, 77 (La. Ct. App. 2001) (asserting that a supplier had issued adequate warnings to the purchaser and had no further duty to advise because the buyer was a

For example, in *Goodbar v. Whitehead Bros.*,⁵⁹ a federal district court applying Virginia law granted summary judgment in favor of sand suppliers in consolidated product liability actions brought by 132 foundry workers who allegedly contracted silicosis through exposure to silica at their worksite.⁶⁰ The court held that “there was a reasonable basis for Defendants . . . to rely upon the Foundry to give appropriate information of all the hazards of working with silica sand and related products to its employees.”⁶¹ The court found that the foundry: “(1) was a knowledgeable industrial purchaser of silica sand and related products; (2) had intimate knowledge of the dangerous properties of silica products since at least the 1950s; and (3) had every reason to try to protect its employees from these hazards by communicating to them information on harmful properties of silica.”⁶²

In addition, the *Goodbar* court held that the sand suppliers had no duty to warn the foundry workers of the risks of silica exposure because the foundry was in a better position than the suppliers to warn workers of the hazards inherent in the use of sand in a foun-

sophisticated user); *Damond v. Avondale Indus. Inc.*, 718 So. 2d 551, 553 (La. Ct. App. 1998) (holding that a supplier of sand owed no duty to warn to an individual worker whose employer had purchased the sand); *see also Baker v. Monsanto Co.*, 962 F. Supp. 1143, 1149 (S.D. Ind. 1997) (allowing the manufacturer of polychlorinated biphenyls (PCBs) to rely on the sophisticated user defense under Indiana law), *aff'd sub nom. Taylor v. Monsanto Co.*, 150 F.3d 806 (7th Cir. 1998); *Newson v. Monsanto Co.*, 869 F. Supp. 1255, 1259 (E.D. Mich. 1994) (applying Michigan law and granting summary judgment for the manufacturer of polyvinyl butyryl (PVB) used in automobile windshields because the automobile manufacturer who purchased the products was a sophisticated user); *Kennedy v. Mobay Corp.*, 579 A.2d 1191, 1199-1200 (Md. Ct. Spec. App. 1990) (establishing that the sophisticated user defense precluded manufacturer liability to employees of a purchaser of Diak 2 and toluene diisocyanate (TDI) products for injuries resulting from exposure to those products), *aff'd*, 601 A.2d 123 (Md. 1992); *Jodway v. Kennametal, Inc.*, 525 N.W.2d 883, 889 (Mich. Ct. App. 1994) (approving the use of the sophisticated user defense for a supplier of cobalt where the purchaser was a manufacturer who regularly used cobalt); *Whitehead v. Dycho Co.*, 775 S.W.2d 593, 598 (Tenn. 1989) (concluding that manufacturers and distributors of the chemical naphtha could reasonably rely on the plaintiff's employer to warn its employees about the hazards of the product); *Bean v. Asbestos Corp.*, Nos. 95-52, 71, 234, 366-426, 1998 WL 972122, at *29-30 (Va. Cir. Ct. Feb. 26, 1998) (allowing an asbestos supplier to assert the sophisticated user defense to preclude liability to employees of a brake shoe plant).

59. 591 F. Supp. 552 (W.D. Va. 1984), *aff'd sub nom. Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985).

60. *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 557 (W.D. Va. 1984), *aff'd sub nom. Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985).

61. *Id.*

62. *Id.* at 558.

dry setting.⁶³ The court listed a number of the difficulties that suppliers would face in attempting to provide such warnings on their own:

(1) the identification of the users or those exposed to its products would require a constant monitoring by the suppliers in view of the constant turnover of the Foundry's large work force; (2) the manner in which the sand products are delivered in bulk (i.e., unpackaged railroad car lots or truck); (3) no written product warnings placed on the railroad cars would ever reach the workers involved in casting or those in the immediate vicinity due to the way the loose sand is unloaded, conveyed, and kept in storage bins until needed; (4) only the Foundry itself would be in a position to provide the good housekeeping measures, training and warnings to its workers on a continuous and systematic basis necessary to reduce the risk of silicosis; (5) the sand suppliers must rely on the Foundry to convey any safety information to its employees; (6) the confusion arising when twelve different suppliers and the Foundry each try to cope with the awesome task of instructing the Foundry workers; and (7) in a commercial setting, it would be totally unrealistic to assume that the suppliers would be able to exert pressure on a large, industrial customer such as the Foundry to allow the suppliers to come in and educate its workers about the hazards of silicosis.⁶⁴

The *Goodbar* court concluded that the foundry, not the sand suppliers, should bear the responsibility of providing a safe workplace and giving warnings of employment-related dangers to workers.⁶⁵ In reaching its conclusion, the court stated:

The extension of workplace warnings liability unguided by practical consideration has the unreasonable potential to impose absolute liability in those situations where it is impossible for the manufacturer to warn the product user directly. In the workplace setting, the product manufacturer often cannot communicate the necessary safety information to product users in a manner that will result in reduction of risk. Only the employer is in a position to ensure workplace safety by training, supervision and use of proper safety equipment. Designating the manufacturer an absolute insurer of its product

63. See *id.* at 566 (noting the difficulties of requiring a supplier to warn of employment-related hazards).

64. *Id.*

65. See *Goodbar*, 591 F. Supp. at 566 (comparing the ability of the employer and the supplier to adequately warn employees of the risk of silica exposure).

removes the economic incentives that encourage employers to protect the safety of their employees.⁶⁶

The Fourth Circuit Court of Appeals affirmed the trial court's decision to grant summary judgment to the sand suppliers.⁶⁷

Likewise, in *Cowart v. Avondale Industries, Inc.*,⁶⁸ a Louisiana appellate court dismissed product liability claims against a sand supplier brought by a foundry worker suffering from silicosis.⁶⁹ The defendant warned the plaintiff's employer on both invoices and on sand sold in bags "that prolonged inhalation of airborne silica particles can cause silicosis . . . that OSHA safety and health standards should be followed."⁷⁰ The court concluded: "These warnings were more than adequate to warn [the plaintiff's employer], a sophisticated user, of the dangers associated with the inhalation of silica dust."⁷¹

B. Bulk Supplier

The "bulk supplier" doctrine is also based on section 388 of the Restatement (Second) of Torts and "essentially is a specialized version of the sophisticated intermediary defense."⁷² The doctrine provides that a supplier that delivers its material in bulk can discharge its duty to warn the end user by warning the buyer of the material's dangerous properties. The rationale for the defense lies in the difficulty or impossibility of warning an end user of a product's risks when the supplier ships the product in bulk (i.e., unpackaged railroad car lots or trucks).⁷³ Furthermore, as comment c to section 5 of the Restatement (Third) of Torts: Products Liability

66. *Id.* at 566-67 (quoting Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 43 (1983)).

67. *See* *Beale v. Hardy*, 769 F.2d 213, 214 (4th Cir. 1985) (affirming the summary judgment granted to the suppliers of silica products in *Goodbar*, 591 F. Supp. at 552).

68. 792 So. 2d 73 (La. Ct. App. 2001).

69. *Cowart v. Avondale Indus.*, 792 So. 2d 73, 77 (La. Ct. App. 2001) (reversing the trial court's denial of summary judgment for the supplier of silica sand).

70. *Id.* at 76.

71. *Id.* at 77.

72. *Gray v. Badger Mining Corp.*, 676 N.W.2d 268, 280 (Minn. 2004).

73. *Id.*; *see also* *Coffey v. Chem. Specialties, Inc.*, No. 92-2397, 1993 WL 318886, at *3-4 (4th Cir. Aug. 20, 1993) (applying South Carolina law to the bulk sale of chromated copper arsenate); *Hoffman v. Houghton Chem. Corp.*, 751 N.E.2d 848, 852-53 (Mass. 2001) (involving the bulk sale of acetone, methanol, and toluene).

explains: "To impose a duty to warn would require the seller to develop expertise regarding a multitude of different end-products and to investigate the actual use of raw materials by [employers] over whom the supplier has no control."⁷⁴ As a result, courts rarely impose a duty to warn in cases involving bulk sales of sand.⁷⁵

For example, in *Smith v. Walter C. Best, Inc.*,⁷⁶ the Third Circuit Court of Appeals affirmed a ruling that a sand supplier could rely upon a foundry as a "knowledgeable purchaser" to supply appropriate information to workers regarding the health risks of silica exposure.⁷⁷ The court, applying Ohio law, found that "it was reasonable for the sand suppliers to assume [the foundry] knew of the dangers of silica given the state of common medical knowledge at all relevant times [and] the various statutes and regulations governing silica."⁷⁸ The court also concluded that the foundry was "in a superior position to supply effective employee warnings," because the "sand was delivered in bulk and was unpackaged . . . thus making reliable direct warnings virtually impossible."⁷⁹

C. *Substantial Change in Condition*

The "substantial change in condition" defense is embodied in section 402A of the Restatement (Second) of Torts and provides that a product seller is strictly liable for harm caused by a product defect if the seller's product "is expected to and does reach the user or consumer *without substantial change* in the condition in

74. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 5 cmt. c (1998).

75. See, e.g., *Smith v. Walter C. Best, Inc.*, 927 F.2d 736, 741 (3d Cir. 1990) (concluding that the sand suppliers had no duty to warn the ultimate users of any dangers because the sand was sold in bulk and unpackaged); *Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 979 (N.D. Iowa 2002) (finding that the defendant had no duty to warn the plaintiffs of the dangers of silicosis where sand was delivered in bulk), *aff'd*, 319 F.3d 350 (8th Cir. 2003); *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 567 (W.D. Va. 1984) (imposing no duty to warn on a sand supplier for sand shipped to a foundry unpackaged in railroad cars or trucks), *aff'd sub nom. Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985); *Damond v. Avondale Indus.*, 718 So. 2d 551, 553 (La. Ct. App. 1998) (noting that where sand was shipped in twenty-five ton bulk shipments to the plaintiff's employer, the supplier could not be held responsible for warning end users such as the plaintiff, who was employed as a sandblaster).

76. 927 F.2d 736 (3d Cir. 1990).

77. *Smith v. Walter C. Best, Inc.*, 927 F.2d 736, 737 (3d Cir. 1990).

78. *Id.* at 741.

79. *Id.* at 740.

which it is sold.”⁸⁰ The doctrine recognizes that after a product leaves the control of its manufacturer or seller, intermediaries such as employers and end-users such as employees can subject the product to a variety of changes. Sometimes the product changes so much after it leaves its manufacturer that tort law will refuse to hold the manufacturer responsible for any harm caused by those changes.⁸¹

In *Haase v. Badger Mining Corp.*⁸² the Wisconsin Supreme Court applied the substantial change in condition doctrine in a foundry worker’s personal injury lawsuit against an industrial sand company.⁸³ The court ruled that the sand supplier could not be held strictly liable for the employee’s injuries because the industrial sand the company sold had undergone a “substantial and material change” when the sand was converted into respirable particles after it left the manufacturer’s possession and control.⁸⁴ The court noted that when the sand left the manufacturer’s control, it was not respirable because the granules were too large to inhale. The sand turned into respirable form only after it was compacted into a mold for metal casings at the foundry.⁸⁵ The court determined that the

80. RESTATEMENT (SECOND) OF TORTS § 402A(1)(b) (1965) (emphasis added). The reporters noted that when a substantial change occurs, a question arises as to “whether the responsibility for discovery and prevention of the dangerous defect is shifted to the intermediate party who is to make the changes.” *Id.* at cmt. p. Ultimately, the reporters withheld judgment on the substantial change doctrine because case law at the time did not provide much guidance on the matter. *Id.* The Restatement (Third) of Torts: Products Liability states that “[p]roduct misuse, modification, and alteration are forms of post-sale conduct by product users or others that can be relevant to the determination of the issues of the defect, causation or comparative responsibility.” *See* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. p (1998) (explaining the impact of misuse, modification, or alteration on duty analysis). Further, “a question can arise whether the misuse, alteration, or modification of the product by the user or a third party contributed to the plaintiff’s harm in such a way as to absolve the defendant from liability, in whole or in part.” *See id.* § 15 cmt. b (explaining impact of misuse, modification or alteration on causation analysis). “Moreover, a product may be found to be defective and causally responsible for plaintiff’s harm but the plaintiff may have misused, altered, or modified the product in a manner that calls for the reduction of plaintiff’s recovery under the rules of comparative responsibility.” *Id.* § 2 cmt. p.

81. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. p (1998).

82. 682 N.W.2d 389 (Wis. 2004).

83. *Haase v. Badger Mining Corp.*, 682 N.W.2d 389, 395-96 (Wis. 2004).

84. *See id.* at 396 (explaining that a substantial and material change to a product after it leaves the control of the manufacturer cuts off strict liability). The court then found that “Badger’s sand underwent a substantial change.” *Id.* at 398.

85. *Id.* at 396.

manufacturer could not be held liable because "the very characteristic which made Badger's silica sand dangerous, its respirability, did not arise until the sand had been fractured into dust by [the foundry] during the foundry process."⁸⁶

The approach in *Haase* is consistent with other cases concluding that manufacturers and sellers should not be held liable for harm caused by substantial changes made to a product after it leaves manufacturers' or sellers' control. For example, in *Cothrun v. Schwartz*,⁸⁷ the plaintiffs brought a lawsuit for asbestos contamination against defendants who sold raw asbestos to a mill formerly operating on the plaintiff's trailer park property.⁸⁸ Citing the Restatement (Second)'s "substantial change" provision, the Arizona appellate court held that the defendant asbestos sellers were not liable for contamination occurring after the mill changed the raw asbestos into dust. The court held:

There is no evidence in this case that the raw asbestos posed a danger of any kind to persons in the position of [the property owners]. It only became potentially dangerous to the appellants when it was in the process of being milled, thus creating dust, and after the process had taken place when the mill dumped the [discarded product] in a [discarded product] pile outside of the mill. The responsibility for preventing the escape of asbestos dust during the milling process rests upon the mill and not the [defendant-sellers].⁸⁹

Thus, as a matter of law, the defendant-sellers were not liable for the plaintiffs' injuries because their raw asbestos only became harmful to the plaintiffs after the mill converted it into respirable dust.⁹⁰

III. *HUMBLE SAND & GRAVEL, INC. v. GOMEZ*

A. *Background*

In *Humble Sand & Gravel, Inc. v. Gomez*, the Texas Supreme Court considered negligence and product liability claims brought by a sandblaster with silicosis, Raymond Gomez, against the sup-

86. *Id.*

87. 752 P.2d 1045 (Ariz. Ct. App. 1988).

88. *Cothurn v. Schwartz*, 752 P.2d 1045, 1046 (Ariz. Ct. App. 1988).

89. *Id.* at 1048.

90. *Id.*

plier of silica flint that eventually became the silica dust Gomez inhaled at his worksite.⁹¹

Gomez testified that blasting at his place of employment was done inside an area called the "blast house."⁹² Gomez was hired to work as an end grinder, a job that did not involve blasting but was performed in the dusty environment of the blast house.⁹³ He was given a disposable respirator (paper mask) held by rubber bands against his face.⁹⁴ After a month, he was moved to "end cutter," which involved blasting.⁹⁵ At that point, Gomez was given an air-fed hood for blasting along with the mask and was instructed how to properly use the hood.⁹⁶ "Gomez testified that the [air-fed] hoods he wore were not torn, did not allow dust inside, and were always in good condition."⁹⁷ He also testified that when blasting was stopped, employees were forced to take off their hoods to leave the blast house, even though there was dust in the air.⁹⁸ The reason was that the hoses supplying air to the hoods did not reach past the immediate work area.⁹⁹ Furthermore, Gomez testified that he did not wear an air-fed hood when cleaning the blast house, even though the activity stirred the settled dust back up into the air.¹⁰⁰

Humble Sand sold flint to some customers in bulk, but the flint sold to Gomez's employer, Spincote, was "always in 100-pound bags."¹⁰¹ From the time Humble Sand began packaging and selling flint for abrasive blasting in 1982, its bags warned that the product "MAY BE INJURIOUS TO HEALTH IF PROPER PROTECTIVE EQUIPMENT IS NOT USED."¹⁰² In addition to this warning, the Material Safety Data Sheets (MSDS) provided to Humble Sand's customers, as required by OSHA, explained that "Respiratory Disease may result from years of concentrated dust exposure

91. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 171-72 (Tex. 2004).

92. *Id.* at 178.

93. *Id.*

94. *Id.*

95. *Id.*

96. *Gomez*, 146 S.W.3d at 178.

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

101. *Gomez*, 146 S.W.3d at 178.

102. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 176 (Tex. 2004).

without respiratory protection," and that "Abrasive blasting personnel should use only approved respirators."¹⁰³

Humble began using a more thorough warning on its bags in 1993: "BREATHING DUST OF THIS PRODUCT CAUSES SILICOSIS, A SERIOUSLY DISABLING AND FATAL LUNG DISEASE. AN APPROVED AND WELL-MAINTAINED AIR-SUPPLIED ABRASIVE BLASTING HOOD MUST BE WORN AT ALL TIMES WHILE HANDLING AND USING THIS PRODUCT. FOLLOW ALL APPLICABLE OSHA STANDARDS."¹⁰⁴ Experts testifying on behalf of Gomez at trial approved of the latter warning but criticized the earlier warning and MSDS for understating the severity of the potential health risk and for failing to specify that the only "proper protective equipment" and "approved" respirator was an air-fed hood.¹⁰⁵

The jury found that Gomez's silicosis was the result of Humble Sand's failure to provide more specific warnings.¹⁰⁶ The trial court rendered judgment, excluding credits for settling codefendants and including interest, for \$2,053,058.76 for Gomez and \$54,672.07 for each of his two children's loss of parental consortium.¹⁰⁷

At the outset, the Texas Supreme Court concluded that Humble Sand owed no duty to warn Gomez's employer "that inhaling silica dust can be disabling and fatal and that workers must wear air-fed hoods, because that information had long been commonly known throughout the industry."¹⁰⁸ The court added: "Blasting operators' disregard of the risks to their employees of inhaling silica dust was not for want of additional information that flint suppliers should have furnished, but for want of care."¹⁰⁹ The court explained:

The evidence that operators like Spincote were often careless in conducting abrasive blasting and insufficiently motivated to provide for the safety of their workers does not ascribe their indifference to inadequate warnings by flint suppliers. On the contrary, the evidence is that operators neglected safety *despite* their knowledge of

103. *Id.* at 176-77.

104. *Id.* at 176.

105. *Id.* at 174, 176-77.

106. *See id.* at 179-80 (finding that the inadequate warnings constituted a marketing defect).

107. *Gomez*, 146 S.W.3d at 180.

108. *Id.* at 184.

109. *Id.* at 184-85.

the seriousness of silicosis and the standards, industrial and legal, for abrasive blasting.¹¹⁰

The court then considered whether Humble Sand had a duty to warn workers such as Gomez that inhaling silica dust could lead to disability and death, and that an air-fed hood should be worn at all times when a person is around silica dust.¹¹¹ The court began its analysis with a discussion of a product seller's responsibilities under section 388 of the Restatement (Second) of Torts.

The court held that if Section 388 were applied literally, Humble Sand would have no duty to warn Gomez because the record disproved the second element of Section 388.¹¹² The court reasoned:

Humble had *every* reason to believe that Spincote knew of the dangers of using flint in abrasive blasting, since they were common knowledge in the industry, and at least *some* reason to believe Spincote would communicate its knowledge to Gomez, since it was required by law to do so, even though many such operators did not warn their employees.¹¹³

The court concluded that if Section 388 were so applied, “[w]arning an employer intermediary would always be good enough.”¹¹⁴ The court, however, refused to impute operator knowledge of the risks of silica to Gomez, having found that “the dangers of silica dust were not generally known to workers like Gomez employed in abrasive blasting operations” and employers could not be relied upon to pass along safety information.¹¹⁵ The court said that Comment n supported the conclusion that the question of duty at issue could not be decided using the literal language of Section 388.¹¹⁶

110. *Id.* at 184.

111. *See id.* at 180 (referring to Gomez's argument that Humble had a duty to warn of the dangers of inhaling silica and that safety required an air-fed hood).

112. *Gomez*, 146 S.W.3d at 186. Section 388(b) provides that one who supplies directly or through a third person a chattel for another to use is subject to liability for harm to foreseeable users if the supplier “has no reason to believe that those for whose use the chattel is supplied will realize its dangerous conditions.” RESTATEMENT (SECOND) OF TORTS § 388(b) (1965).

113. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 186 (Tex. 2004).

114. *Id.*

115. *Id.* at 184.

116. *See id.* at 187 (stating that the rule from the Restatement fails to capture the subtlety of the issue).

The court also rejected a literal application of the Restatement (Third) of Torts: Products Liability section 2(c), which provides:

[A] product is defective because of inadequate instructions or warnings when the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor . . . and the omission of the instructions or warnings renders the product not reasonably safe.¹¹⁷

The court explained that a literal application of Section 2(c) would require liability to be imposed against Humble Sand because Gomez "would have avoided the foreseeable risk of silicosis had Humble warned that inhaling silica dust could result in death."¹¹⁸ The court concluded that Section 2(c) could not be "so mechanically applied," because the reporters' notes indicate that there was to be "no substantive difference" between section 2(c) of the Restatement (Third) and comment n of section 388 of the Restatement (Second).¹¹⁹

B. *Factor Balancing Test to Determine the Existence of a Duty to Warn*

The Gomez court proceeded to set forth six factors to determine "whether a flint supplier had a duty to warn abrasive blasting operators' employees during the time frame that Gomez was employed that inhaling silica dust could result in disability and death and that an air-fed hood should be worn around silica dust at all times."¹²⁰ Those factors are: (1) "[t]he likelihood of serious injury from a supplier's failure to warn;" (2) "[t]he burden on a supplier of giving a warning;" (3) "[t]he feasibility and effectiveness of a supplier's warning;" (4) "[t]he reliability of operators to warn their employees;" (5) "[t]he existence and efficacy of other protections;" and (6) "[t]he social utility of requiring, or not requiring, suppliers to warn."¹²¹ Importantly, the court explained that "these factors must be applied to the abrasive blasting industry as a whole, not merely

117. *Id.* at 189 (quoting RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(c) (1998)).

118. *Gomez*, 146 S.W.3d at 189.

119. *Id.* at 189-90 (citing RESTATEMENT (THIRD) TORTS: PRODUCTS LIABILITY § 2(c) cmt. i.5 (1998)).

120. *Id.* at 192.

121. *Id.* at 192-94.

to Humble, Spincote, and Gomez individually.”¹²² The justices considered each factor in turn and listed the necessary evidence that was absent from the record—evidence a lower court would need to determine whether Humble Sand owed a duty to Gomez.

1. The Likelihood of Serious Injury from a Supplier’s Failure to Warn

Considering the first factor—the likelihood of serious injury from a supplier’s failure to warn—the court stated that silicosis was “unquestionably a serious injury, which is likely to result from working around silica dust” unless workers properly use protective equipment.¹²³ Nevertheless, the court said it was “far from clear” whether workers would be able to establish that warnings from flint suppliers would have prevented them from developing silicosis.¹²⁴

For instance, the court noted that the record did not reflect whether suppliers shipped flint mostly in bags or in bulk, or whether some operators purchased flint only in bags. There also was no evidence that it would be feasible for bulk sellers to warn their customers’ employees. The court suggested that no duty to warn would likely attach to a bulk sand supplier, noting that “several courts have held that there is no duty” for bulk sellers to warn their customers employees and “[n]one has held to the contrary.”¹²⁵ The court added that if suppliers shipped flint “mostly in bulk, without warnings, then the likelihood of injury due to inadequate warnings on the bags . . . may have been small.”¹²⁶

The court also provided guidance to lower courts in the event that evidence establishes most flint was supplied to abrasive blasting operators in bags or that some operators purchased flint only in bags. The court suggested that before a duty to warn could be imposed under these circumstances, blasting workers would need to establish that it was common in the industry for those workers to

122. *Id.*

123. *Gomez*, 146 S.W.3d at 192.

124. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 192 (Tex. 2004); *see also Phillips v. A-Best Prods.*, 665 A.2d 1167, 1171 (Pa. 1995) (concluding that a silica sand supplier owed no duty to warn a foundry worker with silicosis of the risks associated with exposure to silica sand where the jury found that the worker was aware of those risks).

125. *Gomez*, 146 S.W.3d at 192.

126. *Id.*

handle bags and read the labels.¹²⁷ Even if workers ordinarily saw bag labels, the court indicated that a duty to warn should not be imposed if evidence indicates the workers "would have continued on in their jobs out of economic necessity."¹²⁸ In setting forth these guidelines, the court recognized the common sense notion that imposition of liability for failure to warn is unreasonable if a warning would provide no corresponding health benefit (i.e., if workers would fail to read and heed the warnings, for whatever reason).¹²⁹

2. The Burden on a Supplier of Giving a Warning

With respect to the second factor—the burden on a supplier of giving a warning—the court found that "[t]he record established that the burden on a supplier of flint in bags is either inconsequential or nonexistent."¹³⁰ No mention was made of the potential burdens on bulk suppliers if a duty to warn were imposed on them. The court likely concluded it did not need to state the obvious: that the burden would be unreasonable to impose in light of the court's finding, shared by several other courts, that "[t]here is no evidence that it was feasible for bulk sellers to warn their customers' employees."¹³¹

3. The Feasibility and Effectiveness of a Supplier's Warning

Third, the court considered the feasibility and effectiveness of a supplier's warning. The court seemed to dismiss the simplistic notion that a warning would have prevented Gomez's silicosis.¹³² The court stated that "[i]t was obviously feasible for suppliers to print warning labels on bags, but it is not clear from the record before us

127. *See id.* (suggesting that evidence is needed to prove blasting workers handled bags before a duty to warn is found). The court observed that "there is no evidence that any abrasive blasting worker other than Gomez ever saw a warning label on a bag of flint. Gomez's fellow employee[s] did not testify whether [they] had ever seen such labels." *Id.*

128. *Id.*

129. *See id.* at 192-93 (favoring the existence of a duty to warn only when the absence of a warning makes injury more likely).

130. *Gomez*, 146 S.W.3d at 193.

131. *Id.* at 192.

132. The two dissenting justices in *Gomez* believed that "[r]equiring Humble to place an adequate warning on its 100-pound bags of silica flint would not be burdensome; indeed, Humble was already placing a warning on its bags in 1983 and has continued to do so." *Id.* at 200 (O'Neill & Schneider, JJ., dissenting).

whether such labels would have reached blasting workers or would have reduced the risk of silicosis if they had.”¹³³ The court also noted that two studies cited by Gomez about the risks of silica exposure in the industry did not suggest that those risks were attributable to inadequate warnings by suppliers or that supplier warnings would have alleviated the risks.¹³⁴ “Both studies concluded that safe working conditions were up to employers.”¹³⁵ The court concluded: “A warning that could not provide useful safety information was of limited utility.”¹³⁶

4. The Reliability of Operators to Warn Their Employees

With respect to the fourth factor—the reliability of operators to warn their employees—the court found that abrasive blasting operators “knew the dangers of working around silica dust, were in a far better position than flint suppliers to warn their own employees of those dangers, and could have reduced or eliminated altogether the risk of silicosis by following federal regulations.”¹³⁷ Despite this finding, the court noted that the record established that operators routinely did not warn employees and neglected safety measures. The record also contained “no evidence that any government agency or industrial safety group ever considered that safety could be improved by suppliers’ warnings.”¹³⁸

5. The Existence and Efficacy of Other Protections

Fifth, the Texas Supreme Court said that lower courts should consider the existence and efficacy of other protections. The court said that the existence of a comprehensive regulatory scheme under OSHA “weighs against imposing a common law duty to accomplish the same result if the scheme affords significant protections.”¹³⁹ Nevertheless, the court found that the evidence was “overwhelming that the regulations were widely disregarded and as a practical matter, afforded workers little protection.”¹⁴⁰ The

133. *Id.* at 193.

134. *See id.* (discussing findings of studies conducted on silica exposure).

135. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 193 (Tex. 2004).

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.*

140. *Gomez*, 146 S.W.3d at 194.

court's finding suggests that "regulation by litigation" is inappropriate if regulators do their job and enforce OSHA standards.

6. The Social Utility of Requiring, or Not Requiring, Suppliers to Warn

Lastly, the court said that lower courts should consider the social utility of requiring, or not requiring, suppliers to warn. The court expressed concern that "shifting responsibility away from operators might lessen even further [employers'] incentives to provide a safe working environment, ultimately resulting in injuries to more workers than if warnings were not given."¹⁴¹ The court thus invited lower courts to consider whether workplaces may become less safe if employers are able to externalize the costs of their misconduct by shifting responsibility for silica-related exposures to flint suppliers.

C. *New Trial Ordered*

Based on the factors discussed, the court concluded that it could not determine whether suppliers like Humble Sand should provide warnings to their customers' employees. The court reiterated that "[i]f most of the harm to abrasive blasting workers was due to the use of flint supplied in bulk, it would be a perverse result if the responsibility for injury fell solely on those doing the least harm—suppliers who sold flint in bags."¹⁴² Thus, if the evidence establishes that as "applied to the abrasive blasting industry as a whole," suppliers shipped flint mostly in bulk, then liability should not attach.¹⁴³

The court also reiterated that if suppliers shipped flint mostly in bags, but the evidence indicates that "abrasive blasting workers do not ordinarily see bag labels," that would suggest that liability should not be imposed because "it would do little good to require that the labels be more specific."¹⁴⁴

Finally, the court indicated that "if abrasive blasting operators persistently require their employees to work in unsafe conditions, it is not clear that the purposes of imposing a duty to warn—en-

141. *Id.*

142. *Id.*

143. *Id.* at 192.

144. *See id.* at 194 (recognizing that employees performing routine abrasive blasting would not see labels that are more specific).

couraging care and protecting users—can be advanced by requiring flint suppliers to warn that those conditions are indeed unsafe.”¹⁴⁵

As a result of this analysis, the court was unable to conclude “from the record that a duty to warn should *not* be imposed on flint suppliers.”¹⁴⁶ Ultimately, the court remanded the case for a new trial, explaining that if the evidence is undisputed then the trial court should determine the duty as a matter of law.¹⁴⁷ If the evidence is in conflict, however, the court indicated that the conflict should first be resolved by the finder of fact and then the duty issue determined.¹⁴⁸

IV. APPLYING THE *GOMEZ* RULE IN TEXAS

Texas courts must now weigh the factors set forth in *Gomez* to determine whether silica flint suppliers have a duty to warn their customers’ employees regarding risks that are known to their employers. This task may be daunting. As the dissenting justices in *Gomez* pointed out: “[T]he [c]ourt concludes that this case should be retried to allow Humble to prove that it owed no duty to workers like Raymond Gomez. If I were Humble, I would surely appreciate the second chance—but I wouldn’t have a clue what to do.”¹⁴⁹

This Article provides a framework to help guide Texas’s lower courts decide liability actions against sand suppliers. Much of the discussion below focuses on claims arising out of the abrasive blasting industry. Nevertheless, our model fits other industries where silica exposures can occur and where litigation may arise concerning a supplier’s duty to warn (e.g., foundries, road and building construction, demolition, and ceramics).

145. See *Gomez*, 146 S.W.3d at 194 (noting that flint suppliers are not in the best position to warn users of flint about its harmful effects because abrasive blasting operators repeatedly require the same users to work in the unsafe conditions the blasting produces).

146. See *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 194 (Tex. 2004) (concluding that a duty to warn may be placed upon flint suppliers).

147. See *id.* at 195 (directing trial courts to determine the issue of duty when the facts in the case are undisputed).

148. See *id.* (dictating that trial courts should allow the factfinder to resolve the disputed facts before ruling on the duty issue).

149. *Id.* at 197 (O’Neill & Schneider, JJ., dissenting).

A. Bulk Suppliers

Initially, lower courts must determine whether suppliers shipped flint mostly in bags or in bulk, or whether some abrasive blasting operators purchased flint only in bags. If the evidence establishes that suppliers sold most flint in bulk to the abrasive blasting industry, then the analysis should be fairly straightforward, regardless of how Spincote may have received its flint from Humble Sand. The same scenario applies equally to silica sold mostly in bulk to other industries. As the Texas Supreme Court recognized in *Gomez*, "several courts have held that there is no duty" for bulk sellers to warn their customer's employees and no court "has held to the contrary."¹⁵⁰ The court appreciated that courts rarely impose a duty to warn in cases involving bulk sales of sand.¹⁵¹ These holdings support a finding that, as a matter of law, Humble Sand owed no duty to warn Gomez of the risks of silica exposure.

B. Bag Sales

In the event that the evidence establishes that most flint was supplied to abrasive blasting operators in bags or that some operators purchased flint only in bags, the lower courts' work is more complicated but still manageable in light of the factors set forth by the Texas Supreme Court. In particular, the Texas Supreme Court acknowledged that no duty to warn should be imposed if warnings would be unlikely to prevent harm to abrasive blasting workers such as Gomez. As described below, the court's factor-based balancing test supports a finding that suppliers owed no duty to warn customers' employees engaged in abrasive blasting operations. The same analysis would apply to other industries that use silica sand.

150. *See id.* at 192 (illustrating that several courts in Texas have held that there is no duty for flint suppliers to warn customers' employees of the potential hazards that may arise from abrasive sandblasting).

151. *See, e.g.,* Bergfeld v. Unimin Corp., 319 F.3d 350, 354 (8th Cir. 2003) (finding that sand delivered in bulk does not place a duty to warn on the supplier, especially when the plaintiffs did not participate in the delivery process); Smith v. Walter C. Best, Inc., 927 F.2d 736, 740 (3d Cir. 1990) (concluding that sand suppliers owe no duty to warn users directly); Goodbar v. Whitehead Bros., 591 F. Supp. 552, 566 (W.D. Va. 1984) (holding that the employer, and not the supplier, owes a duty to warn employees), *aff'd sub nom.* Beale v. Hardy, 769 F.2d 213 (4th Cir. 1985); Damond v. Avondale Indus., 718 So. 2d 551, 553 (La. Ct. App. 1998) (holding that sand suppliers could not practically warn users of the sand).

1. The Likelihood of Serious Injury from a Supplier's Failure to Warn

A key consideration with respect to the first factor outlined in *Gomez* is whether warnings would have prevented workers from developing silicosis. As some commentators have opined, written warnings such as labels are incapable of communicating the extensive information necessary to teach abrasive blasting employees proper safety practices.¹⁵² For example, to assure the proper use of respiratory protection equipment, "employers must establish a comprehensive respiratory protection program, as outlined in the NIOSH Guide to Industrial Respiratory Protection and as required in the OSHA respiratory protection standard."¹⁵³ Important elements of this standard include "periodic environmental monitoring; regular training of personnel; selection of proper NIOSH-approved respirators; an evaluation of the worker's ability to perform the work while wearing a respirator; respirator fit testing; and maintenance, inspection, cleaning, and storage of respiratory protection equipment."¹⁵⁴ Suppliers cannot convey this extensive information on a bag warning.¹⁵⁵ In fact, "it would be totally unrealistic to assume that the suppliers would be able to exert pressure on . . . [employers] to allow the suppliers to come in and educate its workers about the hazards of silicosis."¹⁵⁶ Sand suppliers cannot enter work sites to inspect whether employers and employees are adhering to a given set of warnings, and they cannot discharge or otherwise discipline employees who disregard these warnings. In addition, confusion could arise if multiple suppliers

152. See Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 68 (1983) (noting that a written warning is usually insufficient to convey the detailed instructions that are needed to safely use the product).

153. *Silicosis-Silica Dust Protection: Respirators, Paper Dust Masks, Sandblasting Hoods & Other Equipment* (citations omitted), <http://www.silicosis.com/respirators> (last visited Oct. 25, 2005) (on file with the *St. Mary's Law Journal*).

154. *Id.*

155. See *Goodbar*, 591 F. Supp. at 566-67 (highlighting that the "product manufacturer often cannot communicate the necessary safety information" to users in a way that will effectively reduce the inherent risks (quoting Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 43 (1983))).

156. See *id.* (illustrating the unrealistic burden that would be placed on suppliers if they had to convince employers who used sandblasting to allow them to inform their employees of the hazards of silicosis).

and the employer each try to cope with the task of instructing workers about workplace exposure risks.¹⁵⁷

Moreover, warnings may fail to reach exposed workers.¹⁵⁸ For example, employees who work around silica dust, but do not handle the bags, would be unlikely to see the warnings. Gomez evidenced this when he testified "that he did not wear an [air-fed] hood when cleaning up the blast house."¹⁵⁹ If other workers were asked to perform the same job, it is hard to see how a warning would help them.¹⁶⁰

Furthermore, the Texas Supreme Court pointed out an unfortunate reality; regardless of any warning given, workers might "have continued on in their jobs out of economic necessity."¹⁶¹ As one commentator has explained: "Mexican immigrants, with little English and few skills, work sixty to seventy hours per week sandblasting and drilling to earn money."¹⁶² These socioeconomic issues are beyond the ability of tort law to address through the imposition of a duty rule on suppliers.

2. The Burden on a Supplier of Giving a Warning

The Texas Supreme Court found that printing warnings on bags of flint would impose a nonexistent or inconsequential burden on suppliers.¹⁶³ This factor, however, should be trumped by other factors set forth by the court which indicate that the burden of printing a label is not the central issue in the imposition of a duty to

157. See *id.* (noting the confusion that would arise if different suppliers and the employer each tried to cope with the task of instructing workers about the risk of silicosis).

158. See Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 68 (1983) (discussing the difficulty of reaching unsophisticated workers).

159. See *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 178 (Tex. 2004) (highlighting that Gomez testified he did not wear proper protection when cleaning up the premises where the abrasive blasting had occurred).

160. See Joel Slawotsky, *The Learned Intermediary Doctrine: The Employer As Intermediary*, 30 TORT & INS. L.J. 1059, 1070 (1995) ("If the plaintiff is an end user who would not have been in a position to view warnings, the failure to supply a warning could not have proximately caused the injury.").

161. See *Gomez*, 146 S.W.3d at 192 (urging that even if the employees had taken notice of the warnings, they might have been ineffectual due to the employees' economic necessity to keep their jobs).

162. Linda Regis, Comment, *From the Sandbox to Sandblasting: Regulation of Crystalline Silica*, 17 PACE ENVTL. L. REV. 207, 223 (1999).

163. *Gomez*, 146 S.W.3d at 193.

warn.¹⁶⁴ Rather, the key question is not whether a warning could be given, but whether a warning would be effective in preventing silicosis.¹⁶⁵ As discussed above and below, not only are bag warnings ineffectual to prevent silicosis for a number of reasons, but over-reliance on suppliers to prevent occupational exposures could reduce incentives on employers to maintain safe workplaces.¹⁶⁶

3. The Feasibility and Effectiveness of a Supplier's Warning

"There are fundamental problems involved in attempting to communicate instructional warnings only through written channels."¹⁶⁷ For instance, written warnings would be unlikely to aid workers that are functionally illiterate or speak a different language.¹⁶⁸ In addition, suppliers cannot anticipate the informational needs of the various employees who will use the product in their own respective capacities, making "it extremely difficult to design an effective, persuasive written warning."¹⁶⁹

Another problem with written warnings is that they are unilateral communications; they do not permit a worker to ask questions or receive a clarification.¹⁷⁰ Moreover, written warnings do not call attention to themselves in the same manner that an employer can highlight safety risks and instruct workers on how to avoid them.¹⁷¹ Warnings also cannot ensure that appropriate safety precautions will be taken; only employers can discipline employees who fail to

164. *See id.* at 193-94 (discussing the effectiveness of written warnings about the dangers of silica dust).

165. *See id.* at 192-93 (stating that whether a duty to warn exists with respect to flint suppliers "depends in part on whether injury in general is likely to result from the absence of a warning").

166. *See id.* at 194 (contending that "shifting responsibility away from operators might lessen even further their incentives to provide a safe working environment," which would consequently cause an increase in the number of injuries).

167. Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 68-69 (1983) (recognizing that there are millions of illiterate Americans in addition to those residents who are limited to reading in a foreign language).

168. *See id.* (emphasizing that many millions of citizens cannot read English because they speak a foreign language exclusively or are illiterate).

169. *Id.* at 69-70.

170. *See id.* at 70 (noting that the sender cannot adjust a written warning for each audience).

171. *See id.* (describing the limited ability of a written warning to command attention in a busy workplace).

take proper precautions to safeguard against silica exposure.¹⁷² Finally, the procedures for undertaking some tasks, such as the proper manner in which to put on an air-fed hood, are impossible to communicate through written warnings.¹⁷³

Practical considerations may further limit the effectiveness of any warning that could be given. Gomez testified, for example, that his exposures occurred in part when he stopped blasting and had to remove his air-fed hood to leave the blasting house.¹⁷⁴ These exposures, according to Gomez's testimony, transpired because the hose supplying air to his air-fed hood did not reach past the immediate work area.¹⁷⁵ It follows that a warning would not have made the hose any longer, and thus would not have prevented his exposures.

4. The Reliability of Operators to Warn Their Employees

The Texas Supreme Court in *Gomez* found it undisputed that the hazards of silica exposure have been widely recognized by the abrasive blasting industry for a long time, including by Gomez's employer.¹⁷⁶ Other courts, including the United States Supreme Court, have additionally recognized that the risks associated with silica exposure have been widely known for decades.¹⁷⁷

The fact that some knowledgeable employers are careless and disregard the safety of their own employees is inexcusable.¹⁷⁸ But

172. See Victor E. Schwartz & Russell W. Driver, *Warnings in the Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 71-72 (1983) (reasoning that only an employer will have disciplinary control over an employee).

173. See *id.* (emphasizing the difficulty in learning industrial tasks from a written manual alone).

174. See *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 178 (Tex. 2004) (paraphrasing Gomez's testimony at trial about his use of the air-fed hood).

175. See *id.* (summarizing trial testimony about the use of an air-fed hood).

176. See *id.* at 174, 184 (recognizing that the parties conceded that the health risks of inhaling respirable silica have been known for a long time).

177. See *Urie v. Thompson*, 337 U.S. 163, 180 (1949) (emphasizing that "it is a matter of common knowledge that it is injurious to the lungs and dangerous to health to work" with or in silica dust); *Phillips v. A-Best Prods.*, 665 A.2d 1167, 1170 n.2 (Pa. 1995) (recognizing the causal link between silica exposure and silicosis); *Dresser Indus., Inc. v. Lee*, 880 S.W.2d 750, 751 (Tex. 1993) (highlighting that the risks and dangers associated with the inhalation of silica dust have been known for more than a century).

178. Cf. *Gomez*, 146 S.W.3d at 193 (lamenting that many blasting company employers knew of the dangers of working with silica, but failed to share this information with their employees).

this fact standing alone does not compel a finding of a duty on suppliers.¹⁷⁹ It is the role of federal and state agencies—not sand suppliers—to ensure that employers are fulfilling their legal duties by maintaining safe work environments.¹⁸⁰ Also, as explained below, the imposition of warnings liability on suppliers could make instances of employer misconduct even more pronounced than may be occurring today.

5. The Existence and Efficacy of Other Protections

In *Gomez*, the Texas Supreme Court expressed concern that OSHA regulations are widely disregarded by employers.¹⁸¹ This generalization may be untrue. A recent study by OSHA staff found that from 1988-2003, the period observed, only “3.6% of the sampled workers were exposed above the OSHA-calculated permissible exposure limits.”¹⁸² This finding refutes the court’s claim that many employers are careless about worker safety.

The Texas Supreme Court’s generalization also suggests the existence of a lax federal regulatory environment that places regulation of silica exposure on the back burner. There is, however, evidence to the contrary. As stated, NIOSH and the CDC found that from 1968 to 2002, the number of silica-related deaths dropped dramatically.¹⁸³ The CDC credits OSHA’s adoption of permissible exposure limits for silica in the early 1970s and NIOSH’s 1974 recommended exposure limit to respirable crystalline silica as key factors that likely contributed to the substantial decline in silicosis

179. See *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 566 (W.D. Va. 1984) (noting that sand suppliers must rely on employers to convey safety information to employees), *aff’d sub nom.* *Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985).

180. See *Gomez*, 146 S.W.3d at 193 (noting that sand suppliers also failed to realize the ineffectiveness of warnings).

181. See *id.* at 194 (finding that the “evidence is overwhelming” as to the high level of disregard).

182. A.S. Yassin et al., *Occupational Exposure to Crystalline Silica Dust in the United States, 1988-2003*, 113 ENVTL. HEALTH PERSPS. 3255 (2005), available at 2005 WLNR 5475971.

183. See CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., PUBL’N NO. 2004-146, WORKER HEALTH CHARTBOOK 2004, 169 (2004) (describing occupational mortality in the United States); NAT’L INST. FOR OCCUPATIONAL SAFETY & HEALTH, U.S. DEP’T OF HEALTH & HUMAN SERVS., *Silicosis Mortality, Prevention, and Control – United States, 1968-2002*, MMWR WKLY 401, 402 (Apr. 29, 2005), available at <http://www.cdc.gov/niosh/docs/chartbook/> (last visited Oct. 25, 2005) (outlining the national mortality data since 1968) (on file with the *St. Mary’s Law Journal*).

mortality.¹⁸⁴ More recently, “[i]n 1997 OSHA formally announced its intention to adopt a standard, with a potentially very stringent Personal Exposure Limit (PEL). [In 2003], OSHA listed silica as a top priority.”¹⁸⁵ Likewise, NIOSH continues to make silicosis prevention a priority. In August 2004, for example, NIOSH published an informative manual for workers, highlighting the risks of silica exposure, the symptoms of silicosis, and methods of prevention.¹⁸⁶

Even if one were to accept the Texas Supreme Court’s generalizations, the court’s concern should not compel a duty to warn on the part of silica suppliers. The answer to one problem is not to create another. Again, the question as to whether a duty to warn should be imposed on sand suppliers should come down to whether a warning by a supplier would have prevented workers such as Gomez from developing silicosis. For the reasons stated herein, it most likely would not. Therefore, lower courts should give this factor less weight than the other factors set forth by the Texas Supreme Court that focus on the efficacy of warnings to prevent harm to workers and the social utility of imposing stringent legal requirements on suppliers.

6. The Social Utility of Requiring, or Not Requiring, Suppliers to Warn

Imposition of a duty to warn on suppliers raises a serious policy concern that was recognized by the Texas Supreme Court—workplaces might actually be made *less* safe if such a duty is imposed. The Texas Supreme Court in *Gomez* acknowledged that abrasive blasting operators “knew the dangers of working around silica

184. See CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., PUBL’N NO. 2004-146, WORKER HEALTH CHARTBOOK 2004, 169 (2004) (describing occupational mortality in the United States); NAT’L INST. FOR OCCUPATIONAL SAFETY & HEALTH, U.S. DEP’T OF HEALTH & HUMAN SERVS., *Silicosis Mortality, Prevention, and Control – United States, 1968-2002*, MMWR WKLY 401, 403 (Apr. 29, 2005), available at <http://www.cdc.gov/niosh/docs/chartbook/> (last visited Oct. 25, 2005) (discussing silicosis trends) (on file with the *St. Mary’s Law Journal*).

185. Downey Shane, *OSHA Takes Next Step in Issuing a Silica Standard, Lower PEL*, 93 MOD. CASTING 10 (Sept. 1, 2003), available at 2003 WLNR 6824257.

186. See NAT’L INST. FOR OCCUPATIONAL SAFETY & HEALTH, CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH & HUMAN SERVS., PUBL’N NO. 2004-108, SILICOSIS: LEARN THE FACTS! (Aug. 2004), available at <http://www.cdc.gov/niosh/docs/2004-108.html> (last visited Oct. 25, 2005) (explaining the facts concerning the disease of silicosis).

dust, were in a far better position than flint suppliers to warn their own employees of those dangers, and could have reduced or eliminated altogether the risk of silicosis by following federal regulations.”¹⁸⁷ Abrasive blasting operators that fail to provide a safe workplace violate both OSHA regulations and the operators’ legal duties to their employees. A rule imposing a duty to warn upon suppliers would shift the costs of a negligent operator to suppliers and allow careless employers to externalize the costs of their misconduct.¹⁸⁸ Operators would have a diminished incentive to create or maintain a safe work environment:

The employer that realizes it can recoup its workers’ compensation payments from the manufacturer through subrogation has little incentive to invest in safety. The overlap of the workers’ compensation and tort systems thus overemphasizes loss distribution at the expense of loss prevention, and provides few, if any, incentives for the employer to take safety precautions. As one commentator noted, current products liability standards “have had the expected effects: a diminution of employers’ incentives to implement safety measures.”¹⁸⁹

Importantly, refusing to hold suppliers of raw materials liable for failing to warn their customers’ employees would not extinguish an injured employees’ avenue of recovery—injured employees can obtain workers’ compensation for their injuries.¹⁹⁰ Under common law, employers had a duty to maintain safe workplaces. Even now that the primary remedy for workplace injuries is the no-fault workers’ compensation system, that duty still remains. In fact, Texas law allows grossly negligent employers to be sued for certain claims.¹⁹¹

187. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 193 (Tex. 2004).

188. See Kenneth M. Willner, Note, *Failures to Warn and the Sophisticated User Defense*, 74 VA. L. REV. 579, 602 (1988) (explaining that intermediaries decide to warn only when the cost of doing so is less than the potential liability; if the manufacturers bear the liability, intermediaries have no incentive to warn).

189. Carole A. Cheney, Comment, *Not Just for Doctors: Applying the Learned Intermediary Doctrine to the Relationship Between Chemical Manufacturers, Industrial Employers, and Employees*, 85 NW. U. L. REV. 562, 603 (1991) (quoting R.E. Litan & C. Winston, *Policy Options*, in *LIABILITY: PERSPECTIVES AND POLICY* 234 (1988)).

190. See William Bassin, *An Analysis of Employer Contribution to Third Parties Under Workers’ Compensation Statutes*, 30 TORT & INS. L.J. 843, 845-46 (1995) (describing the typical workers’ compensation statute).

191. See TEX. LAB. CODE ANN. § 408.001(b) (Vernon 2005) (stating that the exclusive remedy provision of the workers’ compensation statute “does not prohibit the recovery of

In sum, Texas courts should conclude that liability should not be imposed against sand suppliers under the factors set forth in *Gomez*. In addition, courts should consider the fact that permitting a cause of action against sand suppliers for failure to warn of the risks of silica exposure could lead to less workplace safety, and that injured workers have an avenue of recovery in the worker compensation system.

V. SUGGESTIONS FOR COURTS PRESENTED WITH THE NEXT "GOMEZ"

The analysis in *Gomez* raises a myriad number of "questions that will likely prove to be problematic, at best, if not unanswerable."¹⁹² In particular, the court's duty analysis may result in different duties for suppliers across various industries and even for different sources of employee exposure within an industry—even though the product sold is essentially the same in all instances.¹⁹³ As a practical matter, the court's analysis could result in sand suppliers having no duty to warn in one industry, a duty to issue a particular warning in another industry, and a different duty to warn in another industry. In addition to being unworkable in the marketplace, this approach is likely to result in costly litigation and substantial confusion.

Consequently, as courts outside of Texas are presented with questions regarding a sand supplier's duty to warn, they would be wise to reject the approach adopted by the Texas Supreme Court in *Gomez*. A far better approach would be to adopt a bright-line

exemplary damages by the surviving spouse or heirs of the body of a deceased employee whose death was caused by an intentional act or omission of the employer or by the employer's gross negligence"); see also Carole A. Cheney, Comment, *Not Just for Doctors: Applying the Learned Intermediary Doctrine to the Relationship Between Chemical Manufacturers, Industrial Employers, and Employees*, 85 Nw. U. L. REV. 562, 603-04 (1991) (indicating that courts have allowed employees to bring actions against their employers for harm caused by intentional, reckless, or grossly negligent acts).

192. *Gomez*, 146 S.W.3d at 197-98 (O'Neill & Schneider, JJ., dissenting).

193. See P.F. Guttman, *Industrial Silica Sand*, 54:6 MINING ENG'G 34 (June 1, 2002), available at 2002 WLNR 11672108 (noting that "[t]he [United States Geological Survey] tracks more than [twenty-five] end-use categories for silica sand. But the industrial silica sales person sees many more applications within these broad categories."); see also Jeet Radia, *Developing a Successful Silicosis Prevention Strategy*, 92:11 MODERN CASTING 33 (Nov. 1, 2002), available at 2002 WLNR 5505404 ("There are many potential sources of employee exposure to crystalline silica in a foundry, including sand handling, shakeout and grinding operations.").

bulk supplier,¹⁹⁴ sophisticated user,¹⁹⁵ or substantial change in condition defense,¹⁹⁶ as several courts have done.¹⁹⁷

When suppliers ship sand to employers in bulk, such as in train-cars or trucks, courts should apply the bulk supplier defense and hold that the suppliers do not have a duty to warn their customers' employees about the risks of silica exposure. As discussed earlier, "[r]equiring [a supplier] to directly warn every employee of the potential risks involved with its product would be exceedingly costly and in some cases impossible."¹⁹⁸ Moreover, as the *Gomez* court recognized, "several courts have held that there is no duty" for bulk sellers to warn their customers' employees and "[n]one has held to the contrary."¹⁹⁹ Courts should hold that, as a matter of law, no liability should attach in these situations.

Likewise, when suppliers ship sand in bags, courts should apply the sophisticated user doctrine or substantial change in condition defense and impose no duty to warn on sand suppliers. The federal district court in *Bergfeld v. Unimin Corp.*²⁰⁰ correctly described the proper view on the application of the sophisticated user doctrine to sand suppliers: "[The supplier's] duty, if any, does not survive in tort analysis after the court's determination that [the customer-employer] is a sophisticated user charged with protecting its employ-

194. See *Gray v. Badger Mining Corp.*, 676 N.W.2d 268, 280 (Minn. 2004) (recognizing that a bulk supplier only has a duty to warn employers, not individual employees).

195. See *Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 979-80 (N.D. Iowa 2002) (finding that a manufacturer has no duty to warn employees when a sophisticated user relies on its own information to formulate safety policies), *aff'd*, 319 F.3d 350 (8th Cir. 2003); *Cowart v. Avondale Indus.*, 792 So. 2d 73, 77 (La. Ct. App. 2001) (finding that once a manufacturer notifies a sophisticated employer, the manufacturer has no duty to warn individual employees); *Damond v. Avondale Indus.*, 718 So. 2d 551, 553 (La. Ct. App. 1998) (finding that warnings on invoices to sophisticated users was sufficient to prevent manufacturer liability).

196. See *Haase v. Badger Mining Corp.*, 682 N.W.2d 389, 398 (Wis. 2004) (concluding that a silica manufacturer is not liable when a purchaser substantially changes the product).

197. See *Smith v. Walter C. Best, Inc.*, 927 F.2d 736, 741 (3d Cir. 1990) (determining that manufacturers may reasonably assume that knowledgeable purchasers would warn end users); *Goodbar v. Whitehead Bros.*, 591 F. Supp. 552, 552 (W.D. Va. 1984) (finding that a "skilled purchaser" is responsible for warnings), *aff'd sub nom. Beale v. Hardy*, 769 F.2d 213 (4th Cir. 1985).

198. *Gray*, 676 N.W.2d at 280.

199. *Humble Sand & Gravel, Inc. v. Gomez*, 146 S.W.3d 170, 192 (Tex. 2004).

200. 226 F. Supp. 2d 970 (N.D. Iowa 2002), *aff'd*, 319 F.3d 350 (8th Cir. 2003).

ees."²⁰¹ The rule acknowledges that the duty to warn of silica exposure-related risks should rest with the employer, because the employer is legally obligated to provide a safe workplace and is in the best position to instruct workers as to the proper precautions to be taken in the circumstances. Furthermore, only the employer can take measures to ensure that those precautions are taken, and discipline or discharge workers that ignore workplace safety practices.

In addition, bright-line application of the sophisticated user or substantial change in condition defenses is supported by other policies that relate to warnings in the workplace. For example, as discussed throughout this Article, supplier warnings to their customers' employees are ineffectual and could lead to less workplace safety by diminishing employers' incentives to maintain safe work environments.

Moreover, the impracticality of requiring suppliers to print different labels on bags to address issues specific to various industries necessarily would result in the adoption of a "one size fits all" warning. This type of warning would present its own set of problems. First, as a particular warning addresses more potential issues, the warning becomes longer and, therefore, less effective. As a practical matter, over-warning can lead to no warning being received because users will likely ignore the information. Second, sand suppliers would be forced to warn for the most extreme or remote uses of their product to avoid liability in those situations. Such warnings might confuse workers engaged in other uses and create new safety issues. For example, warnings that might insist on the use of air-fed hoods would likely confuse workers in industries where working with sand does not require such precautions. Also, warning workers as to the need to use an air-fed hood might create new dangers, such as obstructing a worker's hearing and vision in a situation like road or building construction where compromised hearing and vision could lead to serious injury or death.

Furthermore, these examples make clear that courts should not view the duty to warn as a simple task of printing a label on a bag. Twisting tort law to make sand suppliers the insurers of poorly managed workplaces will not solve the problem of workplace inju-

201. *Bergfeld v. Unimin Corp.*, 226 F. Supp. 2d 970, 978 (N.D. Iowa 2002), *aff'd*, 319 F.3d 350 (8th Cir. 2003).

ries. Rather, judges should preserve current tort law, which places liability for workplace injuries on those in the best possible position to ensure safety—employers.

The recent proliferation of speculative silica cases further supports the need for a bright-line rule. If courts require intensive factual investigation and litigation regarding suppliers' duty to warn, the legal costs will be substantial. As a result, suppliers may be put in the position of having to settle thousands of cases for business reasons even though a duty to warn is not supported as a legal or policy matter. This burden is unfair and would only serve to fuel the silica litigation problem.

VI. CONCLUSION

Permitting lawsuits to proceed against silica suppliers, particularly where the vast majority of these cases appear to lack merit, will ratchet up the costs of litigation on suppliers and might force some companies into bankruptcy. There is no justifiable reason to impose such unnecessary costs on the industry. Employers have known the hazards of exposure to respirable silica dust for decades. Moreover, employers are in a superior position to warn their employees. In fact, there are many reasons to believe that warnings from suppliers are ineffectual and could lead to less workplace safety. Courts should follow classic tort law principles and hold that sand suppliers do not have a duty to warn their customers' employees about the risks of silica. Harm resulting from employer carelessness should be born by those employers and compensated in the workers' compensation system.

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