When Does a Worker's Death Become Murder?

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A B S T R A C T

During the past 2 decades, a growing number of manslaughter and even murder charges have been brought against employers in cases involving the death of workers on the job. In this commentary, the author reviews some of these recent cases and looks at other periods in American history when workers' deaths were considered a form of homicide.

He examines the social forces that shape how we define a worker's death: as an accidental, chance occurrence for which no individual is responsible, or as a predictable result of gross indifference to human life for which management bears criminal responsibility. He asks whether there is a parallel between the conditions of 19th-century laissez-faire capitalism that led to popular movements promoting workplace safety and the move in recent decades toward deregulation and fewer restraints on industry that has led state and local prosecutors to criminalize some workplace accidents.

Despite an increased federal presence, the activities of state and local district attorneys perhaps signal a redefinition of the popular understanding of employers' responsibility in maintaining a safe workplace. (*Am J Public Health*. 2000;90:535–540)

In 1983, Stefan Golab, a 59-year-old Polish émigré working at the Film Recovery Systems plant outside Chicago, collapsed and died after inhaling cyanide gas produced in the chemical leaching of silver from used film. The Cook County medical examiner termed his death a homicide following an investigation that revealed that neither Golab nor his mainly Polish-speaking coworkers had been provided with adequate protection from the gas or properly warned of the dangers of cyanide. In the course of the investigation into the death, it was discovered that under orders from the plant managers, the skull-and-crossbones warnings on the side of the cyanide gas container had been scraped off the barrels containing the chemicals used to create the toxic mixture. The company had already been subjected to numerous fines for code violations found by state and federal safety and health inspectors. Furthermore, sick and vomiting workers were a common sight around the plant, undercutting company officials' claim that they did not know that the fumes surrounding the workers day in and day out were dangerous.[1–3]

In news that made headlines around the nation, the Cook County district attorney brought the case to the grand jury, which indicted 5 company executives for murder in 1985. In 1993, after 8 years of overturned decisions and appeals, 3 managers were finally sentenced for manslaughter to up to 3 years in jail; another escaped prosecution when the governor of Utah refused to extradite him to Illinois.[1–3]

The Film Recovery case was particularly troubling for lawyers and the press. It was a precedent-setting decision: criminal law had never before "imposed a duty upon corporate managers to provide employees with a safe workplace."[4] It also was the first time corporate executives had been convicted for maintaining unhealthful and dangerous conditions in a plant. Murder, the willful act of an individual resulting in the death of another, had always been difficult to ascribe to factory owners, much less a corporation. Legally, it was traditionally held that a corporation had no "mind" and therefore could not be prosecuted for willful intent, and, further, that it had no "body" and could not be subjected to imprisonment. At best, as in the 1977 case of Pyro Products, a fireworks concern in Massachusetts, criminal prosecutions were limited to involuntary manslaughter charges, for which the burden of proof is considerably lower than for a murder charge. Manslaughter is defined as "an unlawful homicide unintentionally caused by an act which constitutes such a disregard of probably harmful consequences to another as to amount to wanton or reckless conduct."[4]

In a number of law review articles that appeared in subsequent years, authors continued to comment on the implications of the judge's decision in the Film Recovery case.[5–9] In the lay literature as well, newspaper after newspaper remarked on the significance of the case,[10–12] which spurred many to express fear that the number of prosecutions would rise in dangerous trades such as mining, construction, and chemical works.[13]

While the Film Recovery case was the first to result in a conviction, it was just one of a number of manslaughter and murder indictments that were brought to court in the 1980s and 1990s. In fact, the number of manslaughter and murder charges brought against corporations and their executives has been growing since the late 1970s, when executives at the Warner-Lambert company were brought to trial after a vat exploded, killing a worker in the company's Long Island City, NY, bubble-gum factory. In the 1980s and 1990s, manslaughter and murder charges were brought against corporations and owners of construction companies, demolition companies, mining companies, chemical manufacturers, waste disposal corporations, electrical manufacturing corporations, maritime terminal operators, the Morton Salt Company, automobile manufacturers, air-bag manufacturers, the director and producers of the film *The Twilight Zone,* and others.[14–27]

In 1985, the Los Angeles district attorney established a team of prosecutors dedicated to investigating and prosecuting criminal charges against corporations in cases of wrongful death.[28,29] In 1988, the Justice Department ruled that "employers whose workers are killed or injured on the job can

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be prosecuted for murder, manslaughter, or assault under state law and cannot seek refuge under Federal laws on workplace safety."[30] In 1991, a fire that killed 25 people and injured 56 in a chicken processing plant in Hamlet, NC, led to the indictment of 3 officials who were accused, among other things, of having locked these employees in the plant. One plant owner was sentenced to a 20-year term in prison.[31–33] Recently, a superior court judge in Oakland, Calif, sentenced the owner of a chrome plating company to 16 months in jail and fined him $500 000 for instructing an employee to crawl through an entry hole and clean sludge from the bottom of a tank filled with acids and cyanide—an act that led to the deaths of 2 workers.[34,35]

The movement of job-related injuries and deaths into the criminal courts, where district attorneys prosecute corporation heads and managers for manslaughter and murder, is still unusual enough to be newsworthy. In 1984 *Business Week* published a review article titled "Why More Corporations May Be Charged with Manslaughter."[36] In 1985, the *New York Times* commented on the viability of manslaughter and murder charges brought against corporations. "For years, the courts rejected the notion that a corporation could be charged with a crime," opined the newspaper. "But the idea of corporate 'personhood' stopped short of murder."[37] More recently, the *Wall Street Journal* expressed concern about the "growing number of employers . . . being charged with manslaughter, reckless homicide, and assault" and the fact that "prosecutors in 14 states in recent years have sought jail time for employers, sending at least 12 to jail in the 1990s."[38]

Traditionally, a worker's injury or death has been addressed in the civil courts, where workers have sued for damages, or through the workers' compensation system, where workers or their families have gained modest, if relatively secure, compensation in exchange for giving up their rights to sue companies for damages. While it is premature to identify a "trend," the recent criminal cases may signal a definite change in employees' historical dependence on the decisions of civil juries, workers' compensation boards, expert panels, and the broader public health community to remedy injustices. Further, the criminalization of a worker's death is a step in the transformation in our thinking about the nature of industrial accidents and disease: Is this an essentially private matter, to be settled in court between a worker and an employer? Is it a public health matter? Or is it a public, criminal issue, to be prosecuted by the state? We may be in the process of reinventing the means by which the public protects its right to a safe and healthy workplace, exclusive of the compensation system and state and federal regulatory bodies.

The Changing Understanding of Workplace Deaths

For the historian, it is remarkable that this change is occurring under historical circumstances that in certain ways are familiar and in certain ways are very different from earlier efforts to bring national attention to the need to reform workplace conditions. First, the recent effort to introduce the concept of murder into our understanding of industrial accidents is coming not from the labor movement, the public health community, federal agencies, or liberal advocacy groups, but from local prosecutors and the states. Second, it is occurring at a time of labor decline and weakness, born as it was in the midst of the Reagan administration. Third, it is an effort that appears to assume that the administrative and governmental tools of the Occupational Safety and Health Administration (OSHA) and public health agencies are ineffective, despite a continuing decline in the fatality rate in American workplaces. Finally, it is occurring in a virtual vacuum of popular pressure.[39]

While this may be the first time in American history that prosecutors have defined workplace death as a form of homicide, it is certainly not the first time that broad segments of the American public have viewed it in this way. During the past century there have been numerous instances in which popular journals, government, unions, and laborers have defined workplace deaths as forms of murder. A brief look backward may help us understand the ways in which a worker's death is socially transformed from an "accident"—an unpredictable, chance occurrence—into manslaughter or murder—a preventable and predictable event, caused by one or more identifiable entities. In this process, the responsibility for such an event is also transformed: no one is to blame for an accident, but specific persons, sometimes in their capacity as representatives of disembodied corporations, can be held accountable for a preventable and predictable event.

The growing concern over workers' deaths took shape in the first decade of the 20th century, in the wake of the revolutionary social and economic changes that American industry had recently undergone. In little more than 3 decades, Americans had witnessed the virtual explosion of urban and manufacturing centers as rural populations moved to urban centers. Before the Civil War, most Americans lived on farms or in small towns, and the few factories that existed were scattered in mill and mining communities throughout the Northeast. The growth of the transcontinental railroads, the development of national markets, increased exploitation of natural resources such as coal and iron, and the massive immigration of laborers from rural Europe to the cities of the Northeast and Midwest changed the conditions of work dramatically. (See Tomlins.[40,41]) America rose from a fourth-rate industrial power to the world's leading industrial producer.

Along with increased production came a rapid decline in working conditions for many laborers. Speed-ups; monotonous tasks; exposure to chemical toxins and metallic, mineral, and organic dusts; and unprotected machinery made the American workplace among the most dangerous in the world.[42] "To the unprecedented prosperity . . . there is a seamy side of which little is said," reported one observer in a 1907 article titled "The Death Roll of Industry." "Thousands of wage earners, men, women, and children, [are] caught in the machinery of our record breaking production and turned out cripples. Other thousands [are] killed outright. . . . How many there [are] none can say exactly, for we [are] too busy making our record breaking production to count the dead."[42(p791)]

In a theme that would appear repeatedly, reformers compared the toll of industrial accidents to that of an undeclared war, sometimes a war on workers themselves. In 1904, for example, *The Outlook,* a mass-circulation magazine, commented on the horrendous social effects of industrialization. "The frightful increase in the number of casualties of all kinds in this country during the last two or three years is becoming a matter of the first importance. A greater number of people are killed every year by so-called accidents than are killed in many wars of considerable magnitude. . . . It is becoming as perilous to live in the United States as to participate in actual warfare." The magazine demanded that the states begin counting industrial accidents and deaths "in order that the people of the United States may face the situation and understand how cheap human life has become under American conditions."[43]

The power of the early-20th-century movement depended on the widespread publicity provided by a group of journalists and writers. These "muckrakers" exposed the horrible conditions of work to millions of Americans through mass-circulation magazine articles, pamphlets, and books. Their primary aim was to arouse the public through a widespread propaganda campaign aimed at forcing reform legislation through Congress and state legislatures. They also sought to force particularly dangerous industries to

clean up their workplaces, by developing a language and argument that portrayed workers' deaths as a form of industrial homicide. William Hard, in a 1904 article in the widely circulated magazine *Everybody's*, described the conditions of work at the US Steel Corporation's south Chicago plant. In 1904 alone, 46 men were killed on the job and 386 suffered permanent disabilities. In vivid detail, Hard described how men fell into vats of molten metal or were showered with molten steel by sudden explosions in the furnace.[44] Similar conditions were described in 1911 by John Fitch.[45]

The Survey, Everybody's, and *The Outlook,* all widely distributed mass-circulation magazines, served as the outlets through which muckrakers and others exposed conditions in the dangerous trades and detailed "the death roll of industry." Here, writers described how industrialists sent "to the hospital or the graveyard one worker every minute of the year."[42(p791)] Others noted that the "price we pay in human lives for our industrial progress is . . . appalling. For nearly every floor of every skyscraper that goes to make up Manhattan's picturesque skyline, a man gives up his life."[46] During these years, Crystal Eastman wrote her classic study of Pittsburgh workers, *Work-Accidents and the Law,*[47] and Upton Sinclair wrote *The Jungle.*[48] It was at this time, too, that Alice Hamilton produced her classic studies of the lead industry[49] and wrote feature articles for popular magazines relating the plight of urban industrial workers and their families.[50] At the federal level, the Railroad Compensation Act of 1907 promised financial compensation for accidents to railroad workers injured on the job.

The rhetoric used to address workers' deaths in the first decade of the century was composed of two sometimes conflicting ideological perspectives. Most of the muckrakers used the rhetoric of class to talk about the systematic deaths of workers. But others used concepts and language borrowed from the lexicon of business when analyzing the issue of death, disability, and responsibility at the workplace. They often used words and arguments borrowed from then-contemporary theories of scientific management and efficiency, speaking of the "costs" of industrial accidents or the "inefficiency" or scarcity of "human resources" they caused. Injured workers were compared to broken machinery, and workers killed on the job were described as "wasted resources."

"A careful businessman sees that his property is maintained in excellent condition," said one propagandist for International Harvester in 1912. "His buildings are kept in good repair and fully insured against loss from fire. His machinery is always maintained at a high point of efficiency. . . . In short, every dollar he invests in his business is guarded and nursed so that it brings forth its full and legitimate earning power." A businessman who conserves the workforce, he maintained, "is simply applying the same business principles to his workers that he applies to the rest of his business."[51] Others pointed out that healthy workers were more productive than sick workers.[52–54] The overriding assumption of most muckrakers was that if they shone a bright light on acts of evil, the more unseemly outrages of industry would be controlled and the killing of workers would subside.

The Triangle Shirtwaist Factory Fire and Its Consequences

Yet this attempt at moral suasion would change dramatically in the years following the infamous Triangle Shirtwaist Fire in lower Manhattan, near Washington Square Park. On March 25, 1911, just before closing time, a fire began on the eighth floor of the loft building in which 600 women, most of them young immigrants, made corsets and shirtwaists. Quickly the fire began to consume the tons of scraps and cloth clippings that covered the floors of the factory, spreading rapidly to the floors above. Because exit doors were locked from the outside and the fire stairs were made of wood, the women began to realize that they faced a terrible choice: either be burned alive or jump to their deaths 110 feet below. As a crowd gathered below, and as firemen in horse-drawn trucks found that neither their ladders nor the water from their hoses could reach above the sixth story, 62 women jumped to their deaths on the pavement below. Some hit with such force—11 000 lb/ft^2—that they crashed through the pavement into an underground basement.[55]

The fire spurred a shift in the rhetoric regarding the responsibility for "accidental" deaths, as labor organizers, reformers, and socialists began pressing a broader, more pointed class analysis that saw workers' deaths as symptoms of an insidious social malady. A broader indictment of capitalism itself, rather than of individual culpability or the greed of a specific owner, began to permeate the popular and reform literature. Especially after the March of Half a Million garment workers, their families, and supporters (during the week following the fire), it became apparent that the shift in rhetoric augured severe class conflict over workers' deaths. Businessmen "would rather risk their neighbor's lives than their own money," complained one discussant. "Greed feels nothing, knows nothing, cares for nothing but profit. It fears nothing but the loss of dollars. . . . There is no . . . reason to suppose [employers] are distressed by the sight of human beings crushed under falling walls or leaping all aflame from tenth story windows," remarked *The Independent* in an editorial titled "Business and Manslaughter."[56] The fire and its aftermath also ushered in, in the words of Arthur McEvoy, "the establishment of the modern regulatory state."[55(p622)] (See also Stein.[57])

Socialists and moralists rejected a worldview that saw workers as "machines" or the "raw material" for industry. The new rhetoric of the muckrakers and other propagandists achieved major reforms intended to protect workers. It was most successful in making occupational safety and health a national issue. For almost a decade, exposés of inhumane working conditions were regular features in newspapers and magazines across the country. Labor leaders and the American Association of Labor Legislation pressed for a bundle of legislative and voluntary reforms such as the Esch Phosphorus Bill, which mandated a prohibitive federal tax on phosphorus used in the manufacture of kitchen matches (matchmakers who worked with phosphorus suffered from "phossy jaw," a devastating disease that destroyed the jaws). Child labor laws and laws restricting women's work in foundries, lead plants, and other dangerous places were passed. Stricter factory inspection systems were introduced in the larger industrial states.

An alliance between labor and consumer groups augured an even more potent political movement. The Consumers League, a New York–based organization, pressed for "safe and healthful" workplaces and a ban on homework for women and children. The Women's Label League called for a label—similar to the Good Housekeeping Seal of Approval—to be placed in clothes produced in safe and healthful workplaces and to be displayed in advertisements of companies that maintained hygienic workplaces.[58] Even Teddy Roosevelt's Progressive Party adopted a plank calling for safer workplaces.[59]

The "Assumed Risk" Doctrine and Other Roadblocks to Change

During the 19th century, job-related injuries and deaths were seen as unfortunate, perhaps inevitable, by-products of production. Personal health and safety issues in preindustrial America were seen as the responsibility of the worker. Legal doctrines such as "assumed risk" spoke to the prevailing 19th-century

belief that the worker both controlled and was responsible for the conditions of his or her work and that the employee, by taking a job, assumed the risks of employment and therefore responsibility for occupational injury or death. The doctrine of "contributory negligence" held that even when an employer had clearly placed an employee at risk, a suit could be disallowed if the worker had contributed in any way to the accident. Finally, the "fellow servant" rule, which laid responsibility for industrial accidents at the feet of the victim's fellow workers, effectively protected employers from responsibility. Together, these three 19th-century concepts effectively shielded the employer from responsibility for injuries or deaths on the job.[60]

The rise in industrial production, the seeming helplessness of individual workers employed in mass-production factories, and the control that managers obviously sought to assert over a large immigrant workforce allowed for a movement that forced society at large and government officials to respond. All this effort led to the passage of one of the most enduring legislative programs aimed at addressing human welfare. State after state, between 1910 and 1920, passed worker's compensation laws that guaranteed monetary compensation for industrial accidents through a no-fault system of mandatory insurance.

Ironically, this answer to the problems posed by accidents and deaths in the early years of this century may have served to diminish attention to the ongoing deaths and injuries that continued to plague American industry throughout the 20th century. By identifying death and disability with monetary compensation and by moving contention over deaths from the courts to expert panels and administrative boards, [the rhetorical language of industrial deaths] virtually vanished from popular discourse, to appear only sporadically during particularly outrageous moments in the coming decades. No longer did the popular press refer to such deaths as homicides—now they were presented as accidental events, for which there was no corporate criminal liability and which merely required compensation.

Another effect of the development of workers' compensation as the means by which we as a culture addressed death on the job was to remove the issue of accidents from the courts and therefore from public view. As is well known, the compensation system makes it difficult, if not impossible, for a worker or a worker's family to bring an injury claim to court, even when the injury results in the worker's death. When the statutes were written and passed during the second decade of the 20th century, the states mandated that in exchange for relatively fast and uncontested compensation for workplace injuries, workers would give up their right to sue employers in court. The workers' compensation system further undermined popular understanding of workplace injuries as a responsibility of employers by establishing a no-fault system, in which culpability for an accident was no longer an issue. In part, this system freed workers from having to prove in court that an employer's negligence in safeguarding equipment or providing proper warnings had led to an event. In large measure, however, it also served to make culpability an irrelevant issue. State or privately administered workers' compensation boards and insurance companies had no reason to assign blame, other than to adjust premiums according to the dangers of the job. No longer were juries of one's peers forced to determine responsibility.

Despite these drawbacks, the reforms led to significant reductions in job-related fatalities. But work continued to be dangerous and deaths continued to be a frequent occurrence. The tetraethyl lead controversy in the 1920s, when workers in DuPont and Standard Oil facilities in New Jersey were poisoned and died, made national headlines and raised again the question of responsibility.[61] Throughout the 1930s, deaths on the job were, if not an everyday experience, something that seemed commonplace to industrial workers. Disease began to replace accidents as a focus for labor and reform activists, and there were widespread references in the labor, political, and ethnic press to the "murder" of workers on the job. During the Depression, slavery became a prominent metaphor, supplementing the rhetoric of murder.[62,63] Workers, tethered to terrible jobs by the ever-present fear of unemployment, were forced to work under unbelievably horrible conditions. The health and well-being of entire communities were destroyed.

Silicosis and the Redefinition of Responsibility for Risk

The silicosis crises of the 1930s, when it was estimated that thousands of workers were dying slowly and painfully from a disease that was caused by industrial negligence, produced headlines in newspapers and spurred the publication of a number of books and hundreds of articles in popular and professional journals. Once again, industry's role in workers' deaths was seen as criminal negligence at best and murder at worst.[64] But even then, as public health officials, government agencies, and congressional hearings identified silicosis as a well-known and completely preventable disease, workers' compensation and other factors combined to undercut employer responsibility as an issue.

Silicosis, a chronic disease with a long latency period, was perhaps the first such disease to be incorporated into state workers' compensation schedules after 1935. This proved to be an important factor in removing silicosis from public attention in the 1940s and 1950s. In New York State, for example, the bill provided for a maximum of $3000 for total disability for silicosis and no compensation for partial disability.[65] Between 1936—the year compensation for silicosis became law—and 1940, only 79 workers were compensated for silicosis, receiving a total of $99 594.[66] Because the disease was addressed by workers' compensation plans, workers with silicosis were effectively denied access to the courts. Industry took other actions as well to limit the visibility of silicosis, and by the 1940s, the disease began to fade from public view. The professional and business communities, despite continuing documentation of cases, declared silicosis a disease of the past, whose current victims were a legacy of the unhygienic and primitive working conditions of a bygone era and certainly not the responsibility of contemporary owners.[64] Today, silicosis continues to destroy the lungs of workers and to attract the attention of some federal officials.[67]

The Continuing Menace of Accidents and Disease

In 1970, the passage of the Occupational Safety and Health Act—which established OSHA and the National Institute of Occupational Safety and Health (NIOSH)—and the Mine Health and Safety Act once again reminded Americans of the dangers of the workplace and of corporations' responsibility for these dangers. But despite the real decline in job-related fatalities brought on by OSHA, workers' compensation, factory inspection, and the like, there is a continuing "death roll of industry." The Bureau of Labor Statistics estimated that 6210 of the United States' 126 million workers lost their lives in 1995. In all, there were 5 fatalities for every 100 000 workers.[68(p61)] Mining, construction, chemical works, and other dangerous industries continue to injure and kill hundreds of workers a year. On any given day, 1 worker in the United States is killed, mangled by a machine, or crushed in a cave-in or grain bin. Further, on a typical day, 1 worker is killed by falling cinder blocks at a construction site and 2 others die in falls from construction scaffolds, ladders, or roofs.[68(p62)] In 1997, "fatalities resulting from workers being caught in machinery reached a 6-year high."[69,70] While it should be pointed out that trucking accidents and the like are

quite different from the industrial accidents of the past, the shifting nature of the economy has created new, often undocumented, hazards as service jobs and homework replace manufacturing and factory work.[8,9,71,72]

The historic trade-off, in which workers give up their right to sue employers in exchange for relatively swift no-fault compensation, has been supported by labor and management alike for many decades. But this mutual agreement to exchange money for justice has a downside that is slowly becoming more evident as the most egregious acts of corporate malfeasance go unpunished because of laws that often obscure rather than illuminate injustices. The destruction of even a semblance of federal oversight of the workplace has left an enormous vacuum that may be filled, justifiably, by state district attorneys.

District Attorneys or Public Health Advocacy?

If the recent reawakening of concern for workers' deaths is real and the activities of the district attorneys increase in coming years, we must ask some interesting questions. First, we must ask why the criminal code is being employed to address workers' deaths in the absence of a major social movement. In previous eras, state reform and legislative activities *followed* popular and labor agitation; they did not precede it. Second, we must ask why activity is occurring primarily at the state level, rather than at the federal level, where OSHA and NIOSH have claim to the issue. It is perhaps ironic that the conservative attempts to restrict federal regulatory activities and to move control to the state level have resulted in a broadening of the mechanisms for addressing workers' death: what was, at the federal level, an area for public health regulation becomes, at the state and local level, an arena for prosecutorial action. It is a further irony that the public health community's inability or unwillingness to effectively confront this issue is forcing prosecutors to take up the challenge.

We may ask whether there is a parallel between the conditions of 19th-century laissez-faire capitalism that led to the popular movements promoting workplace safety and the Reagan years' move toward deregulation and fewer restraints on industry that have led state and local prosecutors to criminalize some workplace accidents. Finally, we may ask whether the personalized nature of the current prosecutions will lead to success in limiting the number of deaths on the job. By asking such questions and looking at the history of this issue, we may be able to determine when and under what circumstances a worker's death stops being an accident and becomes murder. □

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Endnotes

1. Criminal onus on executives. *New York Times.* March 5, 1985:D2.
2. Board rooms put on notice over job safety by convictions of film-laboratory executives. *Christian Science Monitor.* July 1, 1985:19.
3. Three guilty in industrial cyanide deaths. Associated Press. September 10, 1993. Available at: http://www.lexis-nexis.com/universe.
4. Koprowicz K. Note: corporate criminal liability for workplace hazards: a viable option for enforcing workplace safety? *Brooklyn Law Review.* Fall 1986;52. Available at: http://www.lexis-nexis.com/universe.
5. Samuels AD. Note: reckless endangerment of an employee: a proposal in the wake of Film Recovery Systems to make the boss responsible for his crimes. *University of Michigan Journal of Law.* Spring 1987;20. Available at: http://www.lexis-nexis.com/universe.
6. Comment: state prosecutions for safety-related crimes in the workplace: can D.A.'s succeed where OSHA fails? *Kentucky Law Journal.* Available at: http://www.lexis-nexis.com/universe.
7. Darden D, Greenberg R, Merritt S. Employment-related crimes. *American Criminal Law Review.* Spring 1998;35. Available at: http://www.lexis-nexis.com/universe.
8. Wells C. Corporate manslaughter: a cultural and legal form. *Criminal Law Forum.* Winter 1995; 6:45–72. Available at: http://www.lexis-nexis.com/universe.
9. Broussard J. Note: the criminal corporation: is Ohio prepared for corporate criminal prosecutions for workplace fatalities? *Cleveland State Law Review.* Winter 1997;45:135–164. Available at: http://www.lexis-nexis.com/universe.
10. 2 Start prison terms for '83 cyanide death. *Chicago Sun-Times.* January 4, 1994:1B.
11. 3 Found guilty in workers' deaths. *Phoenix Gazette.* September 10, 1993:B10.
12. Worker injury trial could have significant impact on corporate America. *Journal of Commerce.* February 28, 1991:9A.
13. In 1983, there were 27.6 deaths per 100,000 workers in mining and 26.2 deaths per 100 000 workers in construction. See note 2.
14. Charges filed in fuel tank accident. *Cal-OSHA Reporter.* September 22, 1997;24. Available at: http://www.lexis-nexis.com/universe.
15. Placentia firm officials admit guilt in worker's death. *Los Angeles Times.* September 3, 1992:B4.
16. Deaths spur indictments. *Engineering News-Record.* July 30, 1987. Available at: http://www.lexis-nexis.com/universe.
17. Criminal charges collapse. *Engineering New-Record.* February 18, 1991:10.
18. Curragh charged. *Mining Journal.* April 23, 1993:289.
19. Jersey concern indicted in Akron blast. *New York Times.* April 13, 1985:A1–A6.
20. 3 Charged in 2 separate job site deaths. *Los Angeles Times.* July 22, 1987;part 2:3.
21. Longshoreman, terminal company indicted in fatal customs accident. *Journal of Commerce.* August 25, 1989:1B.
22. Jury clears 2 managers in accidental death of salt worker. *Los Angeles Times.* May 5, 1998:B3.
23. TRW pays $1.7 million in plant blast. *Arizona Republic.* November 14, 1995:B1.
24. All "Twilight Zone" figures acquitted. *Los Angeles Times.* May 30, 1987;part 1:1.
25. 3 Charged in construction site cave-in. *Los Angeles Times.* January 7, 1988;part 2:3.
26. Charge filed over death in trench collapse. *Los Angeles Times.* October 26, 1991;part B:1.
27. Trial ordered for man in fatal blast. *Los Angeles Times.* July 10, 1998;part1:1.
28. D.A. asks help investigating deaths linked to industries. *Los Angeles Times.* June 29, 1985; part 2:1.
29. D.A. to step up job death probes. *Los Angeles Times.* August 23, 1985;part 2:1.
30. Justice Department rules job safety law fails to shield employers. *New York Times.* December 15, 1988:A32.
31. Meat-plant owner pleads guilty in a blaze that killed 25 people. *New York Times.* September 15, 1992:A20.
32. Chicken plant owner gets jail for fatal blast. *Los Angeles Times.* September 15, 1992:A16.
33. Chicken processors charged in fatal fire. *Los Angeles Times.* March 10, 1992:A10.
34. K&L Plating's owner will serve hard time. *Cal-OSHA Reporter.* September 28, 1998;25. Available at: http://www.lexis-nexis.com/universe.
35. Fagan K. Factory that leaked acid was "good job" for some. *San Francisco Chronicle.* October 2, 1997:A1.
36. Why more corporations may be charged with manslaughter. *Business Week.* February 27, 1984:62.
37. Can a corporation commit murder? *New York Times.* May 19, 1985:4-2.
38. Treating on-the-job injuries as true crimes. *Wall Street Journal.* February 26, 1997. See also: A special news report about life on the job—and trends taking shape. *Wall Street Journal.* February 2, 1997:B1.
39. OSHA has the statutory right to push for prosecutions of negligent employers but rarely does so. See note 9.
40. Tomlins C. A mysterious power: industrial accidents and the legal construction of employment relations in Massachusetts, 1800–1850. *Law and History Review.* Fall 1988;6:375–438.
41. Tomlins C. *Law, Labor and Ideology in the Early Republic.* Cambridge, England: Cambridge University Press; 1993.
42. Reeves AB. The death roll of industry. *Charities and the Commons.*1907;17:791–794.
43. Slaughter by accident [editorial]. *Outlook.* October 8, 1904;78:359.
44. Hard W. Making steel and killing men. *Everybody's.* November 1904;17:579–592.
45. Fitch J. The human side of large outputs. *Survey.* November 4, 1911;27:1149.
46. The price, in blood, for industrial progress. *Current Literature.* December 1911;51:629.
47. Eastman C. *Work-Accidents and the Law.* New York, NY: Russell Sage Foundation; 1910.
48. Sinclair U. *The Jungle* (1906). New York, NY: New American Library; 1990.

49. Hamilton A. Lead Poisoning in Illinois, American Association for Labor Legislation, *First National Conference on Industrial Diseases* (proceedings), held in Chicago, June 10, 1910 (New York: AALL, 1910).
50. Hamilton A. Industrial Diseases, With Special Reference to the Trade in Which Women Are Employed, *Charities and the Commons,* September 1908;20:655–658.
51. *International Harvester Company and Its Employees* [pamphlet]. Chicago, Ill: International Harvester Company; 1912:3–4.
52. Harrington TF. Prevention of disease versus cost of living. *Scientific American Supplement.* June 28, 1913;75:402–403.
53. Reeves A. Our industrial juggernaut. *Everybody's.* February 1907;16:149.
54. Pierce P. Industrial diseases. *North American Review.* October 1911;194:530.
55. McEvoy A. The Triangle Shirtwaist Factory fire of 1911: social change, industrial accidents, and the evolution of common-sense causality. *Law and Social Inquiry.* Spring 1995;20:621–630.
56. Business and manslaughter [editorial]. *Independent.* May 2, 1919;72:964–965.
57. Stein L. *The Triangle Fire.* Philadelphia, Pa: JB Lippincott; 1962:159 ff.
58. Investigations have disclosed the fact that unhealthy and poisonous bread is made in non-union bake shops. *Woman's Label League Journal.* June 13, 1913:13.
59. Kellogg PU. The industrial platform of a new party. *Survey.* August 24, 1912;28:668.
60. Bale A. America's first compensation crisis: conflict over the value and meaning of workplace injuries under the employers' liability system. In: Rosner D, Markowitz G, eds. *Dying for Work: Workers' Safety and Health in Twentieth Century America.* Bloomington: Indiana University Press; 1987:34–52.
61. Rosner D, Markowitz G. A "gift of God"? the public health controversy over leaded gasoline during the 1920s. *Am J Public Health.* 1985;75: 344–352.
62. Rosner D, Markowitz G, eds. *Dying for Work: Workers' Safety and Health in Twentieth Century America.* Bloomington: Indiana University Press; 1987.
63. Markowitz G, Rosner D, eds. *"Slaves of the Depression": Workers' Letters About Life on the Job.* Ithaca, NY: Cornell University Press; 1987.
64. Rosner D, Markowitz G. *Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth Century America.* Princeton, NJ: Princeton University Press; 1991.
65. Andrews EF. Memorandum for Dr. Greenburg. April 13, 1936. National Archives, Record Group 174, Office of the Secretary of Labor. Folder: State Labor Department, New York, 1936.
66. Silicosis. *Survey Mid Monthly.* February 1940:np.
67. Markowitz G, Rosner D. The reawakening of national concern about silicosis. *Public Health Reports.* 1998;113:302–311.
68. Census of Fatal Occupational Injuries Staff, Bureau of Labor Statistics. Perils in the workplace. *Compensation and Working Conditions.* Available at: http://www.lexis-nexis.com.universe. Accessed January 1999.
69. Windau JA. Worker fatalities from being caught in machinery. *Compensation and Working Conditions.* Available at: http://www.lexis-nexis.com.universe. Accessed January 1999.
70. Bureau of Labor Statistics. Outdoor occupations exhibit high rates of fatal injuries. *Issues.* March 1995. Available at: http://www.lexis-nexis.com/universe.
71. Workers' compensation cases are threatening the financial structure of the system, leading to numerous calls for reform. See Spieler E. Perpetuating risk? Workers' compensation and the persistence of occupational injuries. *Houston Law Review.* Summer 1994;31:note 82.
72. Jones SD. State prosecutions for safety-related crimes in the workplace: can D.A.'s succeed where OSHA failed? *Kentucky Law Journal.* Fall 1990;79:139–158.