

Women in Safety: Gender Issues and Challenges over the Years

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Introduction

More women than ever are entering the fields of occupational safety and health, and while these are exciting opportunities in today's world, women have not always been welcomed in "non-traditional" occupations, especially in "high risk" industries such as mining, oil and gas extraction, construction, fire-fighting, and many, many others. This presentation will provide a general history of the role women have played in the U.S. workplace over the past one hundred years, including a personal history of the author's experiences in the mining industry. The emphasis on mining is not meant to ignore the experience of women working in other industries, but is used to illustrate the barriers and successes women encounter in the workplace. In any case, with over 40 years experience working in mining, it is what I know and the basis for my work experience. The Women in Safety Engineering (WISE) "100 Women" project and the successes of women working in the fields of safety through the past century will be incorporated. Included will be a discussion of what barriers have been removed, and which still remain, as well as comments and suggestions on how people just coming into occupational safety can create opportunities and make a difference in sending workers home safely for the next one hundred years.

The Way We Were

In order to look at roles played by women in occupational safety and health, it is necessary, perhaps, to take a look at the history of both work in general and of how women have moved into different fields of work. While this presentation will focus on the changes over the past 100 years, the story begins much earlier. A very brief look at milestones in the history of safety in the workplace will help set the tone for a discussion of the past century.

A Short History of Safety at Work

Humans have always been involved with work, whether willingly or forced to do so. Worker safety and health, however, are fairly new ideas, and were rarely a part of any worker's life prior to the end of the 20th century.

- It was slaves who built both the great pyramids and monuments in Egypt as well as their counterparts in Central American and Mexico. Little regard was given to their health and safety, for outside of their ability to work, they were not highly valued.

- Georgius Agricola was one of the first in western civilization to mention worker safety, although it merited only a few short sentences in his seminal book on mining, *De Re Metallica*, published in 1556. He wrote extensively on how to mine and process ores, but had little to say about the miner himself other than to state that he is not “vile and abject. For, trained to vigilance and work by night and day, he has great powers of endurance.” (Agricola, 1556) His safety on the job, presumably, was his own problem, and not a concern of his employer.
- The British began writing insurance policies as early as 1600, but these generally insured property rather than people. Among the first industries to insure its assets was the shipping trade. With pirates prowling the seas, and fierce competition from other countries eager to monopolize lucrative trade across the globe, this was simply pragmatic.
- In 1700, an Italian physician named Bernardino Ramazzini published a paper suggesting that disease and occupation were often linked. (Morrison)
- By the end of the 18th century, doctors in England had discovered that chimney sweeps had a higher rate of cancer than the general population.
- England passed the Mines and Collieries Act in 1842 which banned children under the age of 10 and all women from working in underground mines. This was not viewed positively by the nearly 5,000 women working in British mines. (John, 1984)
- Pennsylvania was the first of the United States to legislate safety, when it passed the Pennsylvania Mine Safety Act in 1864.
- Massachusetts took the lead in industrial safety when it passed the first mandatory factory inspection program in 1867, which was strengthened in 1877 and amended to include mandatory guarding for moving equipment.
- Maryland passed a Workers Compensation law in 1902, which was overturned by the U.S. Supreme Court as unconstitutional in 1904.
- A series of mine disasters, including the Monongah Fire that killed 362 miners in 1907, pressured the U.S. Congress to create the U.S. Bureau of Mines in 1910. While accurate statistics were hard to find, fatalities in the coal and metal/non-metal mines were conservatively estimated to exceed 4,000 annually. The new Bureau had no regulatory authority, but was expected to investigate disasters and use research to develop solutions.
- 1911 saw both the creation of the American Society of Safety Engineers and the Triangle Shirtwaist Factory Fire that killed 146 women. In spite of the fact that the exit doors were locked, preventing workers from escaping the fire, owners of the factory were acquitted of manslaughter charges; they were, however, required to pay \$75 to the families of 23 of the victims. (Greer, 2001)
- Public Law 80-328 of 1947 established mandatory safety standards for underground coal mines, but only provided for inspectors to notify operators and state agencies of violations, and did not include any method of enforcement.
- Public Law 89-376 in 1966 required annual inspection of all coal mines, allowed for closure of mines that were repeat violators, and expanded education and training for miners. 1966 also saw

the passage of PL 89-577 that brought metal/non-metal mines under the standards for the first time, although these standards could be either mandatory or advisory. Enforcement was expected to be done by individual states, not the federal government. (DeMarchi)

- 1969 saw passage of the Federal Coal Mine Health and Safety Act that put real teeth into enforcement of safety standards, and allowed for both civil and criminal penalties for violators. This was a direct result of the 1968 Farmington Mine Fire that killed 78 miners. Health standards were added, training was emphasized, and a Black Lung Benefit program was included.
- In 1970, Congress passed the Occupational Safety and Health Act that created both the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). OSHA was charged with enforcement of safety and health in the workplace, while NIOSH focused on research to improve worker safety and health.
- In 1972, the Sunshine Mine in north Idaho caught fire and 91 men lost their lives. At this time, there was no federal oversight for non-coal mines, which were not included in the 1969 Act. It would be 5 years before Congress closed that deadly loophole.
- 1973 As a result of a surge in demand for coal following the OPEC Oil Embargo, companies hired over 138,000 new miners, and among them were women – the first hired to work in underground coal mines in U.S. history.
- 1977 brought metal/nonmetal mines under the Federal Mine Safety and Health Act.
- A 1978 class-action law suit in Appalachia opened the mining industry to women. By the early 1980s there were nearly 3000 women working in underground coal mines.

It is interesting to trace the development of health and safety accountability in the workplace, and to recognize the expansion of our collective societal responsibility to workers. It is important to note, however, that millions of workers around the world do not yet have the protection we enjoy, and that thousands lose their lives every year to preventable exposures and incidents. Further, different cultures have very different norms surrounding responsibility for the safety of workers, and many of the beliefs we battled early in our history, such as the idea that workers are at fault if they are injured, are still common in many countries.

We Can Do It!

So with all of the advances in safety and health protections in the U.S. workplace in general, what was happening with women specifically, particularly in the past 100 years? This part of the story has less to do with regulations than it does with societal norms, so we will begin with women's role in society.

Many of our ideas about what would be considered appropriate work for women are rooted in the Victorian times, which held that women, being the gentler, more fragile of the sexes, should be protected from physical labor and allowed to stay at home with their children. The obvious problem with this thinking was that it only worked for middle-class and upper-class women, who were wealthy enough to afford it. Poor women were accustomed to working, for if they did not, they and their families would starve. And women were not strangers to the high-risk industries. Agricola included woodcut illustrations in his book on mining in 1556 that showed women working both underground and on the surface. While he referred to miners as masculine, it must be assumed that he both recognized and accepted the presence of women among the mining workforce.

The 1842 English law that banned women from working underground was a reaction to conditions that social reformers found abhorrent. In 1840, England was a major coal-producing nation, with over 2000 mines producing in the major coal fields of the isle. Not only did the British rely on coal as a primary energy source, it produced 80% of the coal used in the world. 150,000 miners worked the mines, and an estimated 5,000 of these were women. (John, 1984) Whole families worked the mines, with the men and older boys cutting the coal from the face and the women and younger children transporting it to the surface. This was brutally hard work, and women got no respite when pregnant or caring for small children. Anthony Cooper, the 7th Earl of Shaftesbury, worked tirelessly to end what he saw as an abusive system, and was instrumental in getting the Parliament to pass the Mines and Collieries act, banning all women and children younger than 10, from the mines. While the sentiment was noble, the reality was harsh, because of the loss of income for families that depended on the shared earnings of their members for basic survival. Many of the women who worked the mines were single, and many had children of their own. At that period of time, there were no public schools in England. Families were expected to provide education for their children, but with the mothers in the mines, children in coal mining towns were mostly illiterate. Lawmakers believed that by banning women from the mines, they would stay home with their children, teach them their letters, and all would be well. Unfortunately, that's not how things turned out.

Coal mining companies needed labor for their mines, and families needed money to survive, so many of the women officially banned from working underground went back into the pits unofficially at a substantially reduced wage. Others found work on the surface, and were known as the "pit brow lassies". Because the government had assigned only one inspector to enforce the new law for over 2000 mines, it was not difficult to circumvent the law. Male miners were also impacted by this situation, because the owners found it advantageous to hire cheaper labor, which shifted jobs from men to women who would work for less money. Because they were legally prohibited from working in the mines, coal mining women could not join the miners' unions, and could not therefore be represented in negotiations over wages and conditions. The overall result for women was that they now had fewer protections than before, made significantly less money, and had to deal with growing hostility from their male coworkers. This is an excellent example of the Law of Unintended Consequences. Rather than providing protections for the Fair Sex, this law was instrumental in making their condition worse.

Women in America were never part of the mining industry, other than as family members. A few women could be found working in small, family-owned mines, but for the most part, they managed the home and families while their husbands mined the coal. None the less, they were obliged to work if their families needed the money to survive, so they moved into jobs as domestic help, farm labor, or when possible, into industrial jobs.

Conditions in the West, however, were far different. When gold was found in California in 1848, people from all over the world rushed to the West. Many came with the hope of making their fortune, while others came for the sheer adventure. This era was the first in recorded history where women, independent of men, moved in considerable numbers toward a new life. Of the 300,000 people who showed up in the first five years, an estimated 10% were women. (Levy, 1992) Escaping societies where they were often unable to own property in their own names, where they were controlled totally by their husbands, and where many occupations were closed to them, these women embraced the freedom offered by the Wild West. They worked where they pleased, owned property if they could afford it, married if and when they wanted, and enjoyed an autonomy unheard of outside of the West. The same test was generally applied to women in the West as to men; if you could do the work you were given the chance. (It should be noted that Wyoming first allowed women to vote by enacting state-wide suffrage in 1869, followed rapidly by many other western states. Wyoming was also the first state to elect a woman governor, in 1924, and is known as The Equality State. Federal law granting women the right to vote was

not passed until 1920.) Victorian ideas about proper behavior began to trickle into this new society, but generally speaking, women in the West had much more freedom than their sisters in the industrial East.

Alice Kessler-Harris in her book, *Out To Work: A History of Wage-Earning Women in the United States*, traces political movements, economic trends, and social developments from the times of the early colonies through the late 20th century. She points out that many of the regulations concerning work that were enacted by different states held the view “If wage work was necessary it had to be bounded by regulations that would preserve woman’s body, mind, and morals for home roles.” This societal norm was obvious in such states as California, where by 1881 women were prohibited from working in places that sold alcohol (an interesting position, since many of the bars and brothels that sprang up during the Gold Rush years were owned and operated by women), or with companies such as Western Union who would not hire women because there was no way to determine who might open the door to receive a telegraph. Other occupations off-limits for this reason included elevator operators, taxi drivers, letter carriers, and meter readers. Many states also passed legislation limiting work hours for women to daytime. These were based primarily on society’s desire to have women home at night, caring for their children.

The most significant recent historical event for women in the workforce was World War II. Men were drafted in large numbers, and the war effort created an insatiable demand for the machines and supplies necessary to fight a war. An estimated 5 million women moved into the workforce, with virtually no restrictions on what kinds of jobs they did. (Kessler-Harris, 1982) Rather than passing laws to restrict the role of women as it had in the past, the federal government actively recruited them into the workforce, going so far as passing a nondiscrimination directive. The War Manpower Commission started a campaign to move women into jobs, and the legal federal age limit for employment was dropped from eighteen to sixteen. Women were told that it was their patriotic duty to go to work and help win the war. Rosie the Riveter was born and became a popular image for the War Years, symbolic of the national effort to protect democracy and defeat dictators. It would seem that women had finally found their niche in the world of work.

When WWII ended however, things changed. Men returning from the war wanted their jobs back, and wanted to settle down and start families. “Media, particularly magazines, promoted the image of strong, capable women making a contribution to wartime, then reverted to images of domestic women content with dishwashers and Mixmasters...as soon as men came marching home.” (Ferguson, 1994) Women were portrayed on TV not with wrench in their hands, but with a vacuum. And naturally, when she vacuumed, the lady of the house wore high heels and pearls. So what were women to do? While a wartime survey indicated 75-85% of the women working during the war years wanted to keep their jobs, they were laid off in droves. The era of Rosie the Riveter, it seemed, was over. Rather than being a shift in society norms, the War Years were only a response to a national emergency, and it was no longer a woman’s patriotic duty to work.

And so women either settled for lesser-paying, more traditional jobs, or left the world of work entirely. And a whole lot of them started, or added to, their families. The biggest increase in the birth rate in history started in 1946, with the appearance of the Baby Boomers. Women were expected to stay at home and take care of their families again, and give the good-paying jobs back to men. Rosie the Riveter and her friends, however, had a different view of this. Women who had enjoyed the financial well-being, social support, and independence that came from high-paying jobs did not want to give them up, and they once more took up the fight for the right to work.

Safety Leaders of the Past

While women were dealing with all of the challenges and struggles that went along with the freedom to be allowed meaningful work, there were several who were focusing their energy on worker safety. It is important to keep in mind that society as a whole did not have a robust view of worker safety until fairly recently. Perhaps that makes the efforts of the early safety pioneers even more remarkable.

The earliest safety and health professionals, it could be argued, were nurses. Women like Florence Nightingale, Clara Barton, and Dorothea Dix helped set a standard of care that underpins health care to this day. Few women of this era were trained as doctors; Alice Hamilton is a notable exception.

Alice Hamilton was raised in a devout family, and dreamed of becoming a medical missionary. After earning her medical degree in 1893, however, she dedicated her life to occupational medicine, spending 22 years living in Chicago's Hull House, a progressive community that offered day care, kindergarten and public baths. (D'Orsie, 2004) It was here, according to her autobiography, that she "got into the labor movement...without realizing how or when". (Hamilton, 1995) Dr. Hamilton was among the first to research the effects of lead dust on workers, and published widely on industrial hazards related to chemical exposures in the workplace. She was the first director of the Occupational Disease Commission, created in 1910 by the Illinois governor. In 1919 she was named an assistant professor of occupational medicine at Harvard (an all-male institution until after WWII), with three caveats: she could not use the Faculty Club, couldn't get tickets to football games, and couldn't participate in commencement exercises with the rest of the faculty.

(<http://www.distinguishedwomen.com/biographies/hamilton-a.html>.) Alice taught at Harvard in the School of Public Health until her retirement in 1935. Her accomplishments were legendary; in 1944 she was even honored as one of the *Men of Science*. Alice Hamilton is recognized by NIOSH for her leadership in the field of occupational safety and health. The Institute presents its highest annual awards to its researchers as the Alice Hamilton Awards.

Another pioneer in the history of safety is Frances Perkins, who in 1933 became the Secretary of Labor, the first woman in U.S. history to hold a cabinet position. Ms. Perkins was a staunch supporter of the rights of workers, and while not specifically involved in worker safety and health, was instrumental in getting legislation passed that limited work hours and set minimum wages.

Blue-collar workers have always had to contend with more hazardous workplaces than white collar employees, and while the industries that provide blue-color jobs have almost exclusively hired men, there are a few women who have been instrumental in bringing the issue of safety to the forefront. Mary Harris Jones (known as Mother Jones) began speaking out against the working conditions faced by the nation's children (mostly working in factories) and miners as early as the 1880's. She was one of the first labor organizers for the mining industry, and spent a fair amount of time in jail because of it. Because she was a fiery activist and very successful in her organizing efforts, she was often referred to by her enemies as "the most dangerous woman in America," but she was also loved and protected by the workers themselves. Mary is famous for saying, "Pray for the dead, but fight like hell for the living!" (McLean, 1978), a worthy motto for anyone in the safety profession. Although "Mother" Mary Jones fought her whole life to improve working conditions, and spent most of her life traveling from one labor battle to another, she did not believe women should work outside the home, and was a staunch foe of women's suffrage, primarily because she believed it was an issue only rich women supported or would benefit from.

Out in the West, another woman was making a name for herself. May Arkwright Hutton was a boardinghouse owner with her husband Levi in the Silver Valley of North Idaho during the mining boom of the late 1800's. They had the good fortune to accept a stake in a local mining claim as payment of a debt, and when it turned into one of the richest silver veins discovered in the region, the Huttons were instant millionaires. In spite of their wealth, they championed the cause of the miners against the companies, particularly in the Mining Wars of 1899. (Montgomery, 1974) May was particularly concerned about the women working in the mining camps, those known as the "Soiled Doves". She opened an orphanage in nearby Spokane, to care for the children born to these women, and even today the Hutton Settlement is totally funded by an endowment she and her husband left. May was an early and ardent Suffragette and worked tirelessly for equal rights for women, even going so far as to run for office before she, herself, could even vote.

Forward to the Seventies

The decades immediately following WWII were frustrating at best for women who wanted good paying jobs. Societal norms did not allow for Rosie the Riveter to continue her labors, and the social support systems that had made it possible for her to work during the war years, such as child care, food service, or transportation to and from the work site, disappeared. Women were still fighting for the right to work, but things didn't really turn around until Civil Rights legislation was passed and it was illegal to discriminate against a job applicant because of gender. Affirmative Action class-action lawsuits, and national goals set in 1978 under an Executive Order issued by President Jimmy Carter, pressured employers to hire women, but in spite of it, gender-based segregation was rampant, especially for industries like construction, steelmaking, and mining. (Tallichet, 2000) Many employers met the letter of the law by advertising job openings, but thwarted the intent of the law by setting unrealistic physical requirements for the jobs they had available, or by interviewing women but never hiring them. (Eisenberg, 1998) Women who were hired often found themselves ostracized by their male colleagues or kept from competing for promotions, and sexual harassment was widespread.

The 1970's still brought significant changes both in the make-up of the work force, and in workplace safety. OSHA, NIOSH, and MSHA all came into existence, bringing the force of the federal government to safety standards and compliance. Women began working as carpenters, miners, plumbers, electricians, truck-drivers, or any other job they could both qualify for and find someone to hire them to do. While the law made it possible to work in these jobs, it did not guarantee you would be hired, or that you would be accepted once you arrived on the job site. The employment door may have been unlocked, but the daughters of Rosie the Riveter would have to prove themselves over and over before the barriers would really come down.

The question of safety and health in the workplace came to the forefront during these years. MSHA particularly was given the strong enforcement responsibility (OSHA still lags in this area), and safety and health inspectors began showing up at work sites. Women found these careers to be both available and challenging. (It must be noted, however, that women are still dramatically under-represented among MSHA inspectors.) Safety and health research was also an option, with NIOSH providing both funding and opportunity for those who wanted to work in this arena. Universities began adding degrees in occupational safety and health, and women were welcomed into these fields. The most telling statistic about the growing society belief in workplace safety is that between 1912 and 1999, occupational fatalities dropped 90 percent. (Greer, 2001) Clearly we are heading in the right direction, but the job is not finished. Over 5,000 U.S. workers still die every year from injuries sustained on the job.

A Personal Perspective

It was early 1972 that I made my first trip to work in an underground mine, the Sunnyside Mine in northern Utah. I was working for the U.S. Bureau of Mines, and although my research team had been preparing for a large field study for months, they had no intention of taking me along. Girls, they said, did not belong underground. A little research turned up the fact that while it was still legal to discriminate against workers in general, it was NOT legal to discriminate against federal employees, and after stating my case, it was agreed that I would go along. The initial field project lasted for about 10 days, during which I worked with my colleagues to install the instrumentation we had built and to gather data from it. The mine employed about 500 men, and was located in a geographically isolated area near Dragerton, Utah. Because it was very deep for a coal mine, the combination of geologic factors and mining methods were creating a deadly situation where support pillars, unable to withstand the pressures on them, exploded, killing or injuring any miner in the area. Our research team was working on a solution.

It was a shock to the miners and supervisors when I showed up to work. Miners are superstitious, and one common belief was that if a woman went into a mine, someone was going to get killed. This obviously put a lot of pressure on me, for being held responsible for someone's death was not appealing.

My answer to this, however, was that many people had died in this mine before any woman ever went into it, and that we were there to help put a stop to these fatalities. I was lucky, perhaps, in that over the 11 years of this research study, no-one was killed or even badly injured. In fact, the miners came to accept my being there, and were willing to show me how to operate equipment or explain how things worked. By the time I moved to a different project several years later they had bestowed the nickname “Miss Bituminous” on me, and gave me several gifts on my last day at the mine.

At this point in my life I had no intention of going into either mining or safety. This was more or less a summer job that had turned into a full-time job after I graduated from the University (with a degree in English Literature, NOT mining.) Because I had no other job lined up, my plan was to work for the Bureau of Mines until I found something more interesting. And that was 40 years ago...I never did find anything more interesting or more worthwhile. One trip underground and I was hooked.

Over the years, I have talked to many women who have worked in non-traditional occupations. Nearly everyone (myself included) had been accused at some point of taking these jobs in order to make a point, and all of us had been blamed for taking jobs away from men who needed them to support their families. Interestingly, I never met a single woman who worked in these fields just to keep a man from doing it. Every one of us had families to support, and were doing what we could to make life better for ourselves and our children. The reality is that skilled blue-collar jobs pay much better than jobs traditionally open to women, particularly women who live in rural or isolated areas. Many of the women I encountered were single mothers, who made the difficult decision to work in jobs where they knew they would be criticized and even harassed because they could not survive on the minimum wage jobs otherwise available to them.

Women who worked underground found it necessary to constantly prove that they could do the work. While they were generally able to do this, it was not so easy to prove themselves in the communities in which they lived. Women miners faced fierce opposition from their husbands and fathers, from their churches, and even from other women. (Moore, 1996) I have had personal experience with this latter, when women in mining towns where I was working confronted me about my intentions concerning their husbands. Seemingly, it was difficult for them to grasp that I was there to do a job, not to look for a husband. I learned quickly not to take this personally, but to assure them that I had no social interest in the male miners, but was deeply interested in finding ways to keep them safe and return them to their families every night. I cannot say that I was ever completely successful in creating a sense of community with women in mining towns, with the exception of other female miners themselves. We shared common experiences and the understanding of what it took to do this work, and could generally talk and laugh easily together.

Women were not totally without help in the struggle to survive in non-traditional occupations, however. Several groups were formed to provide training, advice, advocacy, and a sense of community. These include such groups as Nontraditional Employment for Women in New York, Hard-Hatted Women in Ohio, Tradeswomen, Inc. in San Francisco and Chicago Women in Trades. (Donelson, 2003) The Coal Employment Project was another example. Created in 1977 in response to open discrimination against women in Appalachian mines, the CEP was able to challenge the companies by using Executive Order 11246 passed in 1965 that prohibited companies that held federal contracts from sexual discrimination. The CEP was successful in winning a landmark case against the coal industry, and forcing them to hire at least one woman for every three men hired until women made up 20% of the coal workforce. (Moore, 1996) By the end of 1979, 2940 women were working underground. Recognizing that many of these women had no former training on even the basics of non-traditional work, the CEP developed a training manual that covered not only information about mining and tools they might need to use, but also such topics as Basic Principles of Body Mechanics, Communicating With Confidence and Women, Work, and Discrimination. (CEP, 1979)

I had the great pleasure of meeting and getting to know the man who was the first to hire women at the coal mine he managed. Dave Zegeer was an engineer and superintendent for Consolidated Coal Company and Bethlehem Mines, and when I met him he was the Assistant Secretary of Labor for MSHA. He was also a coal miner to his core. I asked him why he hired those first four women, and looking back on it, would he do it again. Dave is to this day a true gentleman. He laughed at my question and replied that he still doesn't think women belong in the mines. We are, in his opinion, certainly capable of doing the work, but he doesn't believe we should have to deal with the danger and hard-ships that are involved. Underground miners are not always gentlemen, and women deserve to be treated with respect. That said, he told me frankly that the reason he hired the first four women was because he didn't want to go to jail. He recognized that he was being held up as a national example, and that he didn't have any choice but to comply. Would he do it again? Well, yes, he said, especially if the alternative was going to jail, but he still believes women should be protected. When asked whether the women he hired were successful, he smiled and said they were. They were determined to succeed and were good workers.

Employment statistics today show that about 4% of the mining population is female. Women are more common on surface mines, where they can often be found operating large equipment such haul trucks and loaders. Mine managers have discovered that maintenance costs often go down when women are running this equipment. Several have suggested to me that it is because women don't abuse the equipment, and are much more consistent in how they run it. In addition, they shared that women are far less willing to begin their shift with a piece of equipment that isn't working. Instead, they demand that it be repaired before they will take it out. Routine maintenance has increased, while major maintenance expenses have dropped. One mine manager told me he had turned his entire truck fleet over to women (he referred to them as "My ladies".) He said their company's maintenance costs dropped 40% in the first year. He also said he would never hire another male truck driver.

Women have made significant inroads in occupations like mining, construction, trucking, and other blue-collar industries, but they still make up a tiny percentage of the workforce in these industries. A recently released study on Women in America shows that women's participation in the workforce doubled from around 32% in 1948 to 61% in 1997, where it has remained steady. (Dept. of Commerce, 2011) While women have moved into professional fields, and are three times more likely than men to be in administrative fields, they still are under-represented in non-traditional occupations. Rosie the Riveter would be proud of the progress society has made, and would not be surprised that women are working successfully in so many non-traditional jobs. It is clear that few occupations are inherently gender based; men and women today should be hired and paid for what they can do, not who they are. It's been quite a struggle, but in the second decade of the 21st century, there are few who would argue the point.

Where Do We Go From Here?

The field of safety and health today is gender-neutral. Young women, and young men, are free to choose this exciting career and to continue the battle to send every worker home at the end of every shift in at least as good a condition as when their shift began. We no longer need to fight for the right to do this work, which means we can use our energy in other ways. So where do we begin?

Safety professionals still lament that too many managers view safety as a cost rather than a benefit. Additionally, safety people are not always considered part of the management team, and are given the responsibility for safety but not the authority to make it a priority. Stricter laws that hold supervisors legally responsible for workplace injuries and liable for both civil and criminal penalties will raise the value organizations place on their safety program, without a doubt. Society is no longer willing to sit back and watch people get hurt and killed on the job. Safety professionals will become integral to creating the workplace of the future, but in order to be ready, a few things are required.

Perhaps the most important thing for a safety person to pursue is professional credibility. (Although it should be obvious that this is true of almost any profession.) Knowledge of the field is crucial, as is continuing education to keep abreast of such things as new technology, new information, new training materials, and new hazards. Safety is a generalist type of field. Those who are trained in it can use their skills in a wide variety of industries. This is a new paradigm. A brief look at the safety field of the past shows that those working as safety trainers or managers often came from the industries themselves. Many mine safety trainers, for example, were “stooped out miners”, who no longer had the physical ability to perform the grueling work in the mines, and were therefore assigned the task of providing mandatory training to their fellow workers. They moved from the specific (mining) to the general (safety), but were rarely given much formal instruction in either the safety profession or how to train people most effectively. The new model is for trained safety professionals to learn about the specific industries as they apply safety to them. Safety professionals need to commit themselves to obtaining an education in safety and health, and to pursuing continuous professional development. ASSE, NSC, and a variety of industry-based associations provide this opportunity. Professional certification is also a requirement. It is in the best interest of every profession to maintain the quality of its knowledge base and its members, and certification is one way to do this. While obtaining certification is difficult and time-consuming, it is well worth the effort.

Networking is a skill that the women who fought for the right to work understood well. Again, professional organizations like ASSE, and more particularly, Women in Safety Engineering (WISE) provide excellent opportunities for this. Young professionals entering the workforce often have no idea that their older colleagues were pioneers and that the barriers they faced are unthinkable today. They believe in equal rights because they have always had them. It has been observed that while you may be born smart, you have to earn wisdom, and wisdom generally comes with scars. So if you are new to the field, seek out the wise ones, and use them as guides and mentors.

Professional organizations like WISE cannot exist without the people who keep them viable and interesting. WISE, ASSE, NSC, SME, SPE...all of them need energetic volunteers, or they become irrelevant. Take the time to get involved. These organizations provide opportunities for networking, mentoring, professional development, hiring, and a chance to communicate with others who value safety.

While overt sexual harassment is not as common now as it was in the past, it is something that a safety person of any gender cannot tolerate. Hostility in the workplace creates unsafe conditions. So take the time to understand the law and the protection it provides, and stand up to bullying behavior of any kind. It is truly helpful to keep a sense of humor when dealing with coworkers, but you need to know when someone crosses the line.

A safety professional must be uncompromising when it comes to worker safety and health. It is likely that at some point in their career, everyone will come up against a situation where professional integrity demands that an uncomfortable or unpopular action be taken. When that happens, it may be helpful to remember those who have gone before, those who had to fight for the right to work at all and who were attacked, harassed, jailed, or even killed. That may help put the incipient moral dilemma in perspective and help you make the right decision, not the easy one.

Conclusion

Occupational safety and health is a relatively new norm for society, and is still not widely accepted outside of western culture. People have always worked, but until the last 30 or 40 years, their survival on the job was considered to be their own problem. Women have had their own struggles, both to be allowed to work in non-traditional industries that paid good wages, and to be accepted once they were

hired. High-risk, blue-collar industries were particularly resistant to women, but have been forced to accept them when such events as WWII or Affirmative Action legislation removed any doubt that women would be hired. It is interesting to track the progress of safety across the years, and of women's roles in that struggle, but it is only by remembering and using the lessons learned during those years that we will move forward. Young safety professionals are the beneficiaries of the struggles of the past centuries, but they must now move the field forward by being active proponents of safety, and uncompromising champions of the right of every worker to a safe, healthy workplace. Only then will we reduce the number of people killed on the job, and assure that the 5,000 U.S. workers who currently die annually will go home to their families.

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