California Safety History (1911-1937)

This article is entitled California Safety History, but we might reasonably call it “The more things change, the more they remain the same”.

And let me say that this article would not be available had it not been for my friend and fellow USF Don, Ed Callanan, a retired Cal OSHA representative who made copies of California Safety News available to me for research.

In my own history I have served in many safety capacities, some of the most rewarding in teaching positions. For a brief period in the late 80’s and early nineties I was an adjunct professor for the University of Southern California Masters program in Safety and Systems Management. I recall a conversation with a student suggesting that the OSHA rules were available to him when in the good old days there were no guidelines, rules, or requirements when I started in business. I was wrong, but as often happens, time and education have a tendency to change opinion. History is a good teacher but only if we let her open our minds to change. So some history.

1911 was a watershed year in Safety because that was the year that the American Society of Safety Engineers was founded. It was also the year that the first Workers Compensation Laws not struck down by the courts were passed in the State of Wisconsin.

1911 was also the year of the first term of Governor Hiram Johnson, the 23d governor of the great state of California. He also served as one of our state senators from 1917 until his death in 1945. Johnson was a progressive in the mold of Teddy Roosevelt. He was Roosevelt’s vice presidential running mate in the Bull-Moose Party. He was also determined to make significant changes in the workings of government in California. Some of you may not like the initiative and referendum laws on the books in California and you can blame Johnson for that, but you can praise Johnson as an instrument for worker safety. In his inaugural address of January 1911 he said:

In this State all parties stand committed to a just and adequate law whereby the risk of the employment shall be placed not upon the employee alone but upon the employment itself. Some new legal questions will be required to be solved in this connection and the fellow servant rule now in vogue in this State will probably be abrogated and the doctrine of contributory negligence abridged. It is
hoped that those in our State who have given most study to this subject will soon present to you a comprehensive bill, and when this shall have been done the matter will again be made a subject of communication by me.

In that inaugural year the Rosebury law was passed in California to get business and industry used to the idea of workers compensation and was modeled on Wisconsin’s legislation. Johnson did report passage of California’s first workers compensation law and with it the establishment of the Industrial Safety Commission. When the bill establishing work comp was passed and the Industrial Safety Commission came into being it was 1914, not 1973 when Cal OSHA as we now know it was instituted. The Workers Compensation Insurance and Safety Act laid down the broad principle that places of employment must be made safe for employees. The act specifically stated that “Employers shall adopt and use such practices, means, methods, operations and processes as are reasonably adequate to render such employment and places of employment safe and shall do every other thing reasonably necessary to protect the life and safety of such employees.” Is this not our job today? The act mandate responsibilities of employers and set into play a regulatory body to make this happen, the Industrial Accident Commission.

Several not-so-household names topped the list of appointees to the first Industrial Accident Commission. They were A.J. Pillsbury, an attorney, Will J. French (an engineer, perhaps) and Meyer Lissner, a Southern California associate of Governor Johnson and later affiliated with Stanford University. John R. Brownell was named the Department of Safety’s first superintendent. There are no street names commemorating these men, no viaducts or freeway interchanges, but their impact on the workers of California was significant.

In addition to his role as chair of the Industrial Accident Commission, Pillsbury was one of the first members of the International Association of Industrial Accident Boards and Commissions, an organization still active today. For your listening and dancing pleasure the IAIABC put together statistical analysis data on accidents nationwide; encouraged the
Red Cross as early as 1916 to offer first aid courses, established standards for disability payments, and the first standard form for doctors’ first report of accident. Pillsbury was an active member of this association for many years.

If you were to look at the Division of Occupational Safety and Health regulatory structure, you would find units such as Work Comp, Elevator, Pressure Vessel, Mining and Tunneling. Where did these come from?

As early as 1917 the Industrial Accident Commission was active in establishing standards for the protection of workers. One of the most significant accident problems in business and industry was the explosion of boilers in buildings and industrial processes. To assist in their role in accident prevention the first boiler safety orders were issued in 1917 as were compressed air orders and logging and sawmill orders. The standards were set with the input of business and industry and were established with limited staff control or resources. The state of New York found the boiler orders established by California to be so comprehensive and effective as to adopt them almost verbatim in their state accident prevention program.

Cal OSHA today is providing outreach to specific groups. Particular emphasis is on the non-English speaking members of agricultural and construction work forces. In my research I came across a quote taken from an article written in 1917 by James Bennett, a Safety Engineer with the Industrial Accident Commission. Bennett wrote: “... if the “green man” is a foreigner, bear in mind that although you may think that you have made everything clear to him, it is quite likely that he has been jumped so many times for not doing exactly as he was told that he has developed the habit of saying “yes” or “no” when he does not understand what you tell him. It is therefore particularly important when you are working along side of a man who does not speak English very well that you keep a constant eye on him and use extra caution to see that he does not endanger either himself or you.”

This 1917 reminder to loggers affirms our current problem of communication with non-English speakers, but does not agonize about how to communicate. Looking out for the other guy is the watchword.

In the June 1917 issue of California Safety News, another Safety Engineer, JJ Rosenthal,
noted that the first construction safety orders had been reviewed by committees of engineers, general contractors and the building trades in San Francisco and were then referred to a similar committee in Los Angeles. Though no date of adoption is listed, those first orders probably found their way into general construction in early 1918. The same method of advisory committees of the regulated community is in effect today in California and throughout the United States. If you have ever wondered why California has a guardrail height set at 42” minimum and 45” maximum look to those early construction orders. California Safety News also reported that Safety Committees in construction met with some resistance due to the “temporary character of construction work”. How strange that this is the same argument to regulatory change heard often from my clients by our OSHA partners. Nevertheless, Safety Committees did take hold with some companies. In fact the predecessor to our own Teichert Construction, a partnership known as Teichert and Ambrose, developed a safety committee for their work on the Yolo Bypass Weir, a job valued at $350,000. Their total safety expenditures were $565. There were no fatalities and only 12 minor injuries. Again, according to California Safety News, in similar jobs of this size and cost there were often 2 or 3 fatalities over the course of the work.

To set me straight about there not being any guidance for safety before Cal OSHA came into play, let me give you a chronology of some of the safety orders established in the early years. Elevator safety orders were promulgated on October 1, 1916 and Tunnel Safety Orders were effective on December 1, 1919. We often hear contractors bemoan the peculiarities of the serious injury reporting requirements in California, and the costs which can be as much as $5000. California Safety News printed some of the orders and rule number 704 of the Tunnel orders caught my attention. This rule requires a report of fatal injuries by telephone or telegraph. California Safety News bemoaned failures to report fatalities in 1920 as well.

The March 1920 issue of Safety News listed the following individuals working in the Safety Department. Wolflin, Osgood, Brown, Hemingway, Eltringham, Rosedale, Are any of their names familiar to you? They are not to me, but let’s give them credit for their work in establishing safety rules, inspecting industrial and construction operations and fighting the early battles we continue to fight for the welfare of our fellow
Continuing challenges to safety professionals include getting people to wear hard hats or fall protection gear. But hard hats are not new. 1915 saw the development of the first Safety Hard Hat which was finally patented by E.D. Bullard Company in 1919. It was made of canvas, glue and black paint and had a special suspension built by Bullard. California Safety News noted the value of the cap and concluded the article: “Employers of men who suffer occasional head injuries due to the nature of their work should investigate and try out this cap that has given evidence of such excellent head protective qualities. The price of the cap is such that an individual employee who is interested in self-protection can procure it for himself with little or no sacrifice (Volume 4, #6, June 1920 page 12)

In 1927 the California Legislature passed SB 788 establishing the Department of Industrial Relations. E.G. Shiebley directed 19 men in the Department of Safety as of June 30, 1927. In September 1928 there was a CSN note that a permanent safety exhibit would be part of the State Fair. I wonder whatever happened to that exhibit?

Some of you readers may have been students in OSHA 500, 501 or 10/30 hour courses. I have provided these classes for a number of years and thought this was new territory to support industry. Once again history trips me up. The actual first OSHA 10-hour class was held from February to April 1929 at Mission High School in San Francisco. It was called the Superintendent’s, Foremen’s and Mechanics’ Safety School and ended with a dinner at the Hotel Whitcomb in San Francisco. The topics covered were first aid, the workers compensation act, comp rating schemes, organization for safety, explosives, mechanical and electrical hazards, tunnels and shafts, excavations, steel & concrete buildings, scaffolds, trenches and dams. But I guess the message did not get across. The Associated General Contractors of California has proposed to include the OSHA 30-hour course in California college curricula for civil engineers and construction managers.

And let’s not forget about the hazards of falls from elevations. Again, safety professionals urge us to use our skills to get employees to use fall protection. But fall
protection issues are not new, are they? Who would agree that the first use of safety nets was on the Golden Gate Bridge? Until I started research for this article I would have said yes. Cal Safety News shows a photo of a building at 4th and Market streets using nets in 1915. Another story of the Golden Gate is that Strauss, the bridge’s chief engineer designed and installed nets to protect workers. According to Bullard, Strauss made the bridge a hard hat zone, but according to the Industrial Safety Commission it was their order of 1936 that required nets and Bethlehem Steel designed the framework for the nets. According to differing records there were at least 27 and possibly 38 men killed in construction of the Bay Bridge and 13 in the construction of the Golden Gate. I wonder why the commission did not mandate nets for the Bay Bridge?

And when did we require the use of full body harnesses in fall protection? January 1, 1998, right. I found photos of a full body harness developed by Union Oil of California in the December 1937 Issue of California Safety News

The Division of Occupational Safety and Health is in the forefront of employee protection from Crystalline silica. In addition, Cal OSHA recently called an advisory committee on crystalline silica and SB 46, vetoed by the governor, would have required wet methods in all concrete coring, cutting, grinding and cleaning. The president of the Masons’ union reported at this advisory committee that more than 70% of his employees suffered from debilitating lung diseases. Silica, a new problem, Right? Well, actually, no. According to the historical records the first national silica convention was held in Washington in April 1936. This is a hazard that continues to haunt us.

Some of you have children in college? Are they pursuing a degree in Safety? An expensive proposition, right? Well if you are serious about pursuing an industrial safety degree and career, take a time machine ride back to February 1937. The Los Angeles Chapter of the California Safety Society is sponsoring a 20 week course in safety engineering. The registration fee is $2.10.

So how far have we come since these early days? It would seem that human nature being what it is, we may not have come very far. But we stand on the shoulders of those who have come before us. Again, there are no streets, buildings, highways or bridges named after those safety professionals who preceded us, but they set the stage for our
successes in preventing injury and death on our construction sites and in our plants, offices and factories. They set a standard for our performance and I am humbled by their efforts. I salute them and I salute construction companies in their safety efforts. I would note finally, that we have worked for almost 100 years in the vineyard of safety with apparently limited success. If human nature remains as it is we may be employed at this task forever.

But our goals remain the same as noted in the cover page of the January 1917 issue of California Safety News:

And the end is that the workman shall live to enjoy the fruits of his labor; that his mother shall have the comfort of his arm in her age; that his wife shall not be untimely a widow; that his children shall have a father; and that cripples and helpless wrecks, who were once strong men, shall no longer be a by-product of industry.

Bob Downey, CPP, CSP
RED Consulting