

*Features*

**“COOKING THE BOOKS”—BEHAVIOR-BASED  
SAFETY AT THE SAN FRANCISCO BAY BRIDGE**

**GARRETT D. BROWN  
JORDAN BARAB**

**ABSTRACT**

Practitioners of Behavior-Based Safety (BBS) claim dramatic reductions in worker injuries and illnesses through modifying workers' "unsafe behaviors." This case study of a BBS program implemented by KFM, a giant construction consortium rebuilding the eastern span of the San Francisco Bay Bridge in California, documents how BBS was used to suppress reporting of worker injuries and illnesses on site. The key elements of KFM's BBS "injury prevention" strategy included: 1) cash incentives to workers and supervisors who do not report injuries; 2) reprisals and threats of reprisals against those employees who do report injuries; 3) selection and use of employer friendly occupational health clinics and workers compensation insurance administrators; 4) strict limits on the activities of contract industrial hygiene consultants; and 5) a secretive management committee that decides whether reported injuries and illnesses are legitimate and recordable. KFM reported injury and illness rates 55% to 72% lower than other bridge builders in the Bay Area, but the California Division of Occupational Safety and Health (Cal/OSHA) issued Willful citations to the consortium in June 2006 for failing to record 13 worker injuries on its "OSHA Log 300," as required by law.

Federal and state Occupational Safety and Health Administrations have reported over the last decade a steady annual reduction in the number of recorded injuries and illnesses among U.S. workers. However, the accuracy of these numbers has been increasingly challenged by occupational safety and health professionals,

especially as the rates depend on employers to correctly record and report employee injuries and illnesses [1-3].

The experience of KFM—Kiewit Pacific/FCI Constructors/Manson Construction, A Joint Venture—at the San Francisco Bay Bridge rebuild project is a case study of how work site injury and illness rates can be manipulated and under-counted. KFM's Behavior-Based Safety (BBS) program was found by the California Division of Occupational Safety and Health (Cal/OSHA) to be at the heart of a deliberate strategy to encourage under-recording of workplace injuries and illnesses.

BBS is a safety management system based on the assumption that most injuries are caused by employees' "unsafe" behaviors. According to this theory, "correcting" these behaviors through positive or negative incentives—instead of identifying and eliminating physical and systemic workplace hazards—can modify workers' behavior, resulting in improved work site safety and significantly reduced injury and illness rates. One Federal OSHA official labeled KFM's Bay Bridge program as "behavior-based safety out of control" [4].

KFM claimed that its use of behavior-based safety techniques was the basis of an amazing performance record at the Bay Bridge project: work site injury and illness rates that were 55% to 72% below those of other Bay Area bridge builders. In fact, KFM originally claimed that it had zero lost work days and zero restricted work days for more than 1 million man-hours of work at the Bay Bridge in 2004. KFM's recorded injury rate was 1.47 injuries per 100 workers, as compared to other major bridge projects in the San Francisco Bay, which had rates of 3.26 to 12.43 injuries per 100 workers that year [5].

However, in June 2006, Cal/OSHA issued "Willful" citations against KFM for deliberately failing to record at least 13 worker injuries at the bridge, as well as two more citations for failing to investigate reported accidents and to record injuries within the time period set by law.

Cal/OSHA issues "Willful" citations when "evidence shows that the employer committed an intentional and knowing (as contrasted with inadvertent) violation and the employer is conscious of the fact that what he is doing constitutes a violation of a safety law," according to agency procedures [6].

National and California law require employers to record on an "OSHA Log 300" all injuries and illnesses on the job that result in death, days away from work, restricted work, medical treatment beyond first aid, or loss of consciousness. Nationally, under-recording of injuries and illnesses has resulted in increasing numbers of "Willful" citations by federal OSHA over the last several years.

In May 2006, The *Wall Street Journal* reported on a Michigan State University study which indicated that the current method the government uses to track on-the-job injuries and illnesses may miss up to two-thirds of the total number of cases. "Researchers estimated that 869,034 work-related injuries and illnesses occurred on average each year in Michigan from 1999 to 2001, compared with the BLS [Bureau of Labor Statistics] estimate of 281,567

per year. Dr. Rosenman estimates that 75% of the injuries and illnesses missed by BLS resulted from employer underreporting,” the *Journal* noted [7].

This kind of under-recording has important adverse impacts on actual injury and illness reduction because if employers cannot accurately identify and control hazards at their work sites, government agencies cannot optimize the allocation of their limited resources, and the overall safety statistics for the nation’s workplaces do not reliably capture safety trends and “hot spots.”

Back in California, two state investigations in 2005—one by Cal/OSHA and one by the California Bureau of State Audits (BSA)—prompted KFM to revise its 2004 Log 300 to add one “newly recognized” case with 14 days away from work. However, the consortium claims the 13 unrecorded cases identified by Cal/OSHA were either fraudulent or exempted under Log 300 regulations, and KFM has appealed the citations [8].

The key components of KFM’s BBS “injury prevention” strategy at the Bay Bridge included:

- 1) cash incentives to workers and supervisors who do not report injuries;
- 2) reprisals and threats of reprisals against those employees who do report injuries;
- 3) selection and use of employer-friendly occupational health clinics and workers comp insurance administrators;
- 4) strict limits on the activities of contract industrial hygiene consultants; and, ultimately,
- 5) a secretive management committee that decides whether reported injuries and illnesses are legitimate and recordable.

### COOKING THE BOOKS: THE CARROT

The centerpiece of KFM’s BBS strategy is its “Safety Incentive Programs” designed “to motivate employee and supervisory safety performance to achieve zero injury results in an environment that sustains teamwork, open communication, and total involvement” [9].

Monetary incentives are given to every level of employee—hourly, foremen, supervisors, and managers—for meeting quality and completion timeline goals, but *only* if no Log 300 recordable injuries are reported. Any reported injury or illness that is “Log 300 recordable” loses the worker, his or her crew, the foreman, other supervisors, and managers the monetary bonus.

The monetary incentives for workers as a crew and for foremen are substantial:

- The “Pile Head Welding Incentive Plan” provided the individual crew members with \$200, \$400, or \$600 in bonuses over every 26-36 day period—only if there is “no recordable accident”—and crew foremen “receive double the award amount.” The crews consisted of eight employees—one foreman and seven welders and helpers;

- The “Pier 10W—7 W Access Casing Incentive Plan” provided—only with “no reportable/recordable accident”—“possible incentive for entire crew achieving target is \$3,150 (\$5,544 total pay off with gross up) with maximum award incentive for entire crew can be \$6,750 (\$11,880 total pay with gross up).” The crews consisted of six employees—one foreman, four carpenters and one laborer);
- The “Pier 9W-7W Pier Column Formwork Incentive Plan” provided—only with “no reportable/recordable accidents”—“maximum award incentive for entire crew is \$6,400 (\$11,264 total payoff with gross up).” The crews consisted of 13 employees—three foremen, eight carpenters, and two laborers;
- The “Pier 10W—7W Misc. Metal & Set Casing Pre-Cast Slab Incentive Plan” provided—only with “no reportable/recordable accidents”—“maximum award incentive for entire crew is \$3,063.” The crews consisted of two employees—one foreman and one ironworker journeyman;
- The “Skyway Concrete Placement Incentive Plan,” whose “approximate maximum award for entire crew is \$37,560,” clearly stated “any reportable accidents will eliminate the entire crew for the current award period. Any recordable accidents will eliminate the entire crew for a minimum of two award periods and up to elimination from the entire program as determined by the Job Superintendent.” The crews consisted of 11 employees—two foremen, seven laborers, and two masons.

General foreman, superintendents, craft superintendents, job superintendents, and project managers also received monetary awards and “merit cards” essential for salary increases and individual career advancement. The time periods for these awards were determined by the collective number of hours worked by all crews under the salaried employee’s supervision, ranging from 5,000 to 100,000 hours of work.

As always, the awards were dependent on no injuries or illnesses being reported. Section 11 of KFM’s 2004 Safety Plan on the “Recognition and Rewards Program” stated: “Employees will forfeit their recognition/reward on a crew-by-crew basis for any OSHA recordable injury or when directly involved in a general liability accident. When an employee suffers a restricted duty or lost-time accident case, the entire job will forfeit the recognition/reward for the current period.”

Rewards for supervisors and managers, depending on the number of accident-free hours worked, ranged from a “Merit Card and \$100” to a “Merit Card and \$3,000,” with a variety of gifts along the way including an “engraved billfold,” “engraved watch,” “trip not to exceed \$2,500,” and a “gift decided by the District Safety Manager.”

Welders told Cal/OSHA that during the first six months of the incentive plan, from November 2003 to June 2004, they received their monthly \$200-\$600 incentive awards in the form of crisp new \$100 bills tucked neatly inside their pay envelopes [10].

Any “OSHA recordable injury” resulted in everyone up the chain losing their cash incentive, and perhaps not just for the current bonus period but for future award periods as well. Thus, instead of reducing injuries, the goal of KFM’s BBS program was the knowing and deliberate suppression of reporting. The cash incentive plan was self-policing—no worker wanted to lose their own cash bonus, or make their foreman, general foreman, superintendents, and project managers lose bonus money.

Pile excavation crew foreman Arne Paulson told Cal/OSHA: “It was known by everyone *not* to report any injuries because that would mean no BBQ, no tool prizes, no tool box prizes. Everyone would know who ‘lost’ the prizes for the crew, so everyone was terrified to report anything.”

Welder David Dixon reported that supervisors “downplayed reporting of accidents. If you reported an injury, ‘you are hurting the team’ or ‘you are screwing the crew.’”

Another welder, Mario Armani, said the cash “bonus program keeps guys away from reporting accidents, many injuries are not reported, many employees would clean out their own eyes [of metal slivers from grinding] or have their co-workers do it.”

An injured welder, David Laniohan, did not report his injury on the daily time card “because no foreman wants to have a ‘yes’ answer [time card asks whether an injury occurred that day]. The foremen get bonuses for no injuries. There is a general pressure not to say ‘yes’” so as to stay in the good graces of the foreman, according to the Cal/OSHA case file.

Paulson told Cal/OSHA that as a foreman, “whenever I tried to report an injury in the crew, I could not get anyone (superintendent or manager) to sign the form . . . salaried employees received bonuses for production, which also include safety goals, so any reported injuries mean no bonus.”

Paulson himself was injured on the job, but for months was literally carried by co-workers onto the tug boats going out to the work barges to do paperwork in a make-shift office so that there was no “lost time” or “restricted work” duties to record. “The whole reason they were carrying me out to the barge was to avoid putting my injury on the Log 300,” Paulson said.

### COOKING THE BOOKS: THE STICK

When the financial incentives were not enough to suppress reports of recordable injuries and illnesses, Bay Bridge workers told Cal/OSHA that threats of discipline, suspensions, and layoffs were used by supervisors to maintain an accident-free record. KFM’s formal policy is that workers are required to report each and every injury, from simple first aid cases to recordable injuries and illnesses needing medical treatment. Failure to report any workplace injury or illness could be the basis for disciplinary action against workers, which left workers feeling as if “they got you coming or going—if you report, then

everyone loses the money; if you don't report, then they can use that against you in a disciplinary action," according to the Cal/OSHA file.

Pile driver Keith Bates reported, "Everyone was on 'pins and needles' all the time because everyone wanted to keep their jobs, but it was clear that if any injury or illness was reported, there would be adverse consequences . . . KFM discouraged reporting of accidents because it threatened crew cash bonuses and crew barbecues. Workers were individually warned by foremen and superintendents, but we were never threatened at the mass safety meetings. Employees who made safety suggestions or expressed concerns were 'black-balled' by supervisors . . . definitely a disconnect between the stated policy and what really happened on the job."

Daniel Otto, a fit-up and welding crew foreman, said he was "personally involved with superintendents [Dave Polette] and foremen [Doug Silverwood, Jim Belcher and Tim Peeler], who discouraged the reporting of injuries. This happened in my own case, and with Fernando Rivera, Francisco Aguirre, Dave Dixon and Chris Hallstrom." Otto said that superintendents and foremen "conducted reprisals against employees in the form of verbal humiliation in public," and also in "laying off injured workers, such as Fernando Rivera, Dave Dixon and Chris Hallstrom, to send a message to the crew."

Otto also told Cal/OSHA that the KFM "safety program was organized to look good on paper, but actual practice on the job was different."

Welder Chris Hallstrom reported, "Randolph got hurt when he was struck on the head, and he insisted on getting a medical evaluation [which means an injury report is filed]. [Foreman] Jim Belcher told everyone on the boat going out to the pile—welding and fit-up crews together, more than 30 workers—'here's the guy who lost you the incentive.'"

"Jim Belcher was then the welding foreman, and Belcher hounded Randolph after his injury. He [Randolph] got fired for something Belcher made up. It was made clear that this would happen to everyone," Hallstrom told Cal/OSHA. Later on when Hallstrom wanted to get a medical evaluation of his swollen knee, "Jim Belcher said to me, 'do you want to be another Randolph?'"

David Roundtree, a welder who left KFM on his own initiative in June 2004, explained that "the incentive plan works against reporting injuries. Everybody trying to keep their jobs—don't make waves. When you reported injuries, they treated you as a criminal . . . KFM created an atmosphere where you didn't want to report. They called everyone 'whiners' and 'crybabies.' . . . There was self-generated pressure not to report, especially among Latino workers. Almost no Latinos ever reported any of the injuries they had."

Francisco Aguirre, an apprentice welder at the bridge, confirmed the harsh atmosphere in the KFM work site to Cal/OSHA: "There was a lot of pressure from supervisors (Dave Polette, Jim Belcher and Tim Peeler) not to report injuries because they will lose safety cards for themselves and cash bonuses for

the crew. . . . The pressure from above was very intensive—we had to finish by some time and *no* accidents.”

An investigator for the Bureau of State Audits wrote up his interview notes with welder Mario Armani as follows: “he [Armani] said that he raised his concerns but was told to ‘find another job.’ One time, he was boxed in by KFM management, after he had raised concerns, and was told that he had better weld very fast or they would fire him for working too slow.”

The BSA report issued in February 2006 noted “of 139 current and former KFM employees who responded to our survey, 52 indicated that they had been injured while working on the Skyway project, and 24 of these injured employees indicated they felt pressure to not report their injury. Although we did not specifically ask about safety incentives in our survey, five workers mentioned them as a reason why injuries were not reported. However, a more frequent concern, expressed by 14 of the workers, was that they believed they would lose their jobs or face lesser forms of retaliation if they reported an injury” [5].

### COOKING THE BOOKS: THE DOCTORS

Behavior-based systems are accompanied by other methods intended to discourage the recording of work-related injuries and illnesses. Another key to maintaining suspiciously low injury and illness rates at the Bay Bridge was careful management of the “work status reports” received by KFM from its contract first aid personnel on site, from the three occupational health clinics under contract to diagnose and treat injured workers, and from the third party administrator of its self-insured workers compensation insurance.

Work status reports are a key trigger for recording “lost work days” and/or “restricted work days” on the OSHA Log 300. KFM’s safety staff spent a lot of time, according to Cal/OSHA’s investigative file, riding herd on the diagnosis and treatment of injured workers.

Former Field Safety Manager Winston Peart, who worked for KFM between April 2003 and March 2004, gave a written statement to BSA investigators in the fall of 2005.

In describing KFM’s safety program, Peart explained: “KFM had an on-site first aid office in which contract nurses who were on call would treat injured workers. It was my experience with KFM, and with other companies that I have worked for, that these nurses are aware of the criteria defining what is a first aid and what is ‘medical treatment beyond first aid.’ To help an injured patient, these nurses sometimes conduct ‘medical treatment beyond first aid.’ However, they know to document the procedures as first aid to avoid making the injury recordable. . . . I saw numerous embedded object eye injuries, and frequently these injuries required medical attention beyond first aid. However, I do not believe that all of these injuries were reported on KFM’s 300 logs . . .



“It is my understanding that Mr. Hughes [former KFM Safety Director Robert Hughes] would accompany the victim to the clinic because Mr. Hughes knew the doctors there and had some degree of influence in persuading them to classify injuries in a way as to not make them either reportable or recordable, depending on the severity of the injury. . . . In essence, the clinic is selected based on its willingness to classify most injuries as return-to-work injuries. From my conversations and experience with Robert Hughes, I believe that he selected the Skyway Project’s medical clinic based on this criteria,” Peart wrote the BSA.

Welder Chris Hallstrom told Cal/OSHA that when he “was being seen by Dr. Stephen Nord at Premier Care Medical Group in Pleasanton, he was always accompanied into the exam room by safety managers Rob Hughes or Chuck Chartrey. “The safety guy would bargain with Dr. Nord. They would bargain over the wording of the work status report and the job restrictions.” Hallstrom asked to see Nord alone, “but Chuck Chartrey would not permit it. The safety people would sit there saying ‘no problem, he’s on [unofficial] light duty’ so that the doctor would not write up any official days of RWD [restricted work days] on the work status reports.”

Employer knowledge of the diagnosis and work status is a key determinant of any Log 300 entry. Under California’s workers compensation law, the employer has the right to “designate” the physician treating work-related injuries and illness for the first 30 days of treatment, unless the worker “pre-designates” a physician prior to any accident. The employer’s designated doctor keeps control of injury treatment and work status reports after the first 30 days, unless workers formally ask to be treated by another physician.

Specialty Risk Services (SRS) is the third party administrator of KFM’s worker compensation self-insured insurance policy. If KFM workers had not pre-designated their own doctor for the first 30 days of treatment, and if the workers did not ask to transfer their treatment after 30 days to their own physicians, then SRS would only pass on to KFM the work status reports of employer designated doctors, as allowed by law [11].

Foreman Daniel Otto told Cal/OSHA that injured workers were “extremely discouraged to go to their own doctor.” It appeared the discouragement worked as the Cal/OSHA case file indicates that no injured worker had pre-designated a non-KFM doctor. It also appeared that SRS did not inform KFM of non-KFM physicians’ work status reports, even after workers went to their doctors after the first 30 days of treatment.

In practice, what this meant is that any work status reports from local emergency rooms visited by workers after hours, or from the employee’s own physician, would not be transmitted by SRS to KFM, and, therefore, could not be the basis for any lost or restricted work day entries on KFM’s Log 300. The Cal/OSHA case file indicated that SRS acted as a “knowledge screen,” blocking the transfer of information from non-KFM physicians to KFM managers responsible for Log 300 entries.



Foreman Paulson told Cal/OSHA that after his knee injury at work, he “was sent to U.S. Health Works, who prescribed him aspirin and sent him back to work. [Paulson] then went to Kaiser immediately after work, where the MD prescribed crutches and RWD [restricted work days] for 14 days as well as Vicodin. [Paulson] ‘could not report [his visit to Kaiser] to KFM or I would have been fired or laid off right away.’”

At Paulson’s next visit to U.S. Health Works, the doctor there told him he did not need crutches and sent him back to work with a “return to full duty” work status, which would not trigger a Log 300 entry, according to the Cal/OSHA files.

Carpenter Steve Swanson, who suffered a hernia working at the Bay Bridge, said, “KFM is so paranoid about injuries—‘do *not* go to your own doctor, go to our doctor.’ They are set up with their own doctor—he works for them—it’s an insurance thing to keep down workers comp cases.” Swanson’s hernia was declared to be “non-industrial” by the physician at U.S. Health Works in Berkeley, a KFM-designated clinic, so the injury was not entered onto the Log 300, and Swanson did not qualify for workers comp medical coverage, according to the Cal/OSHA files.

#### **COOKING THE BOOKS: THE INDUSTRIAL HYGIENE CONSULTANT**

Another KFM strategy, since Log 300 recording also depends on employer knowledge of workplace illness, was to limit the information it received that explicitly pointed to employee exposure to potentially illness-causing chemical exposures.

In 2002, KFM hired the Salt Lake City-based firm IHI Environmental, which has a Bay Area office, to conduct industrial hygiene monitoring and provide technical assistance at the Bay Bridge.

IHI President Don Marano told Cal/OSHA that his firm was “hired for specific tasks, to provide specific information, we had no general responsibility. . . . We gave KFM the data—it was their responsibility to interpret and act on it.” During the 2002-2004 period, Marano told Cal/OSHA, “Early on we did give recommendations. Some were followed, some were not or only partially implemented” [12].

In June 2004, however, the reporting protocol for IHI changed as KFM had been sued by welders claiming welding-related illnesses from their work at the Bridge. “We did the same work as before, but reported on the results without interpretation and recommendations by IHI,” Marano told Cal/OSHA. “KFM did not want anything other than raw results data.”

Cal/OSHA’s investigative files note, “IHI Environmental tables indicate that between March 2003 and June 2004 IHI personnel took 111 personal samples for welding fume exposure and 46 personal samples for fibers on welders. Twenty-three of the 111 samples (21%) showed exposures above the Cal/OSHA

PEL [permissible exposure limit] of 0.2 mg/m<sup>3</sup> while another six samples showed exposures over the 10-hour day 'adjusted' PEL of 0.16 mg/m<sup>3</sup> (taken together this means 26% of personal sampling documented over exposures). Sixteen of the exposures above the Cal/OSHA PEL occurred between March and June 2004."

Former Field Safety Manager Peart told BSA in his written statement, "I was aware that an industrial hygiene company had conducted air samples in the confined spaces in which the welders worked. I asked Mr. Hughes about the results and he said that they were within acceptable parameters. When I pointed out the workers were still getting sick, he said the workers were just 'crybabies.' I asked if the workers would be allowed to see the results and he said that they wouldn't know how to interpret them."

Peart told Cal/OSHA that employees were "afraid for their jobs" if they called in sick with work-related illnesses; instead they would "call in sick for a home-related illness, such as a 'cold picked up from a child'" rather than from welding fumes. Peart reported "the problem of welding exposures was definitely not resolved in April 2004, when I left. The welders were still complaining about it and they didn't have an effective ventilation system."

It took KFM almost a year of continuous welding fume exposures to welders, resulting in employees taking off numerous personal sick days caused by the "KFM flu," before an effective ventilation system was installed, according to the Cal/OSHA case file.

Despite the illness-related worker absences, ongoing media coverage and state investigations, no welding-related illnesses were ever entered onto KFM's Log 300.

### **COOKING THE BOOKS: THE REAL DECISION-MAKERS**

The ultimate "failsafe" for maintaining low injury and illness rates for KFM at the Bay Bridge is the fact that the consortium, like all employers, is the one who decides what gets entered onto the Log 300, supposedly using the medical work status reports, internal accident reports, Log 300 regulations, and "other relevant information."

In May 2006, Cal/OSHA conducted interviews with KFM safety managers Robert Hughes and his successor Tim Dare. Dare told Cal/OSHA that the decision to make a Log 300 entry was made via "informal, verbal discussions" among a select group of managers (all of whom are eligible for the cash incentive program), including the project safety manager, job superintendents and construction managers on site, the local project director, and the district and regional safety managers in Vancouver, Washington [13].

Conveniently, this select group of decision-makers does not meet formally, but rather has "informal" telephone conversations; it does not keep any records of their discussions or who participated; and it does not exchange e-mails or generate any written record of their deliberations or decisions.

Exactly what occurs behind closed doors with this group of managers was not discovered by Cal/OSHA or the BSA, but former safety staffer Winston Peart wrote to the BSA: “During my experience at KFM, I witnessed a pattern of deliberate underreporting of injuries. This was frequently accomplished by classifying injuries in a way that allowed individuals to return to work and perform some light-duty assignment. This allowed KFM to avoid reporting the injury to Cal/OSHA or submitting an Employer’s First Report of Injury (Form 5020) to KFM’s worker’s compensation administrator. In addition, I found that these injuries were typically not included on the Form 300 logs.”

### WHY KFM DOES IT

Why a giant construction consortium would spend so much time and effort to keep recorded injury rates low was explained in a September 3, 2006, editorial by the newspaper chain which publishes the *Oakland Tribune*:

Thus, a head injury to Ramon Martinez, Keith Bates’ disabling fall from a truck, Darrell Hall’s back injury and a career-ending knee injury to Arne Paulson never showed up on state injury records. Paulson even spent 16 months performing light duties before going to an outside physician who almost immediately scheduled him for surgery. Paulson said he was fired by KFM the day he was on the operating table.

How does this scenario help KFM, beyond sanitizing its injury record?

Good safety records keep insurance rates down, enabling a firm to be more competitive when bidding for jobs. High insurance rates resulting from too many injuries can price contractors out of the market. Its sort of market-controlled, says Bart Ney of the California Department of Transportation. And, if most other things are equal, safety records can be the deciding factor in getting a contract since fewer injuries signal that a contractor runs safe projects, saving time and money [14].

Miraculous reductions in reported workplace injuries and illnesses are also the promised result of Behavior-Based Safety programs. But BBS critics have long pointed out that hallmarks of BBS programs are a “blame-the-victim/worker” approach, a disinterest in and inability to get to the root causes of injury-producing incidents, and a false picture of the real number of injuries and illnesses on the job [15].

### A NATIONAL PROBLEM

The problem of deliberate employer under-recording has become so serious that federal OSHA has issued rare “Willful” citations to major Fortune 500 companies.

In June 2004, federal OSHA issued a Willful citation (later changed to “unclassified”) and \$70,000 fine to Weyerhaeuser’s Truss Joint facility in

Buckhannon, WV, for failing to record at least 38 injuries and illnesses on its Log 300. The citations “paint a picture of an organization where under-reporting of injuries and illnesses appeared to be a routine practice that was tolerated, and even rewarded, by company vice presidents,” according to *Occupational Hazards* magazine [16].

In October 2004, Southern California Edison under-reported workplace injuries and illnesses for the previous seven years and had to return \$35 million in safety-related bonuses to the California Public Utilities Commission. “Edison found evidence that supervisors contacted outside medical personnel to influence treatment, change medical records, or downgrade the seriousness of an injury. Other times, Edison said, its managers encouraged employees to dodge safety reporting requirements by undergoing physical therapy or using vacation days during recovery,” the *Los Angeles Times* reported [17].

Also in October 2004, federal OSHA issued two Willful citations and \$140,000 in fines to General Motors Powertrain Corp. in Massena, NY, for failing to record 98 instances of work-related noise-induced hearing losses and other injuries and illnesses. Eight other citations with \$20,000 in fines were issued [18].

In November 2005, federal OSHA issued three Willful citations and \$165,000 in fines to Fraser Paper’s Madawaska, ME, paper mills for Log 300 violations between 2003 and 2005. Fed OSHA found 59 instances of injuries and illnesses that were not recorded, 77 instances where recordable entries were not made within seven days, and two years (2003 and 2005) for which incomplete annual injury and illness log summaries were certified as being complete [19].

In November 2006, federal OSHA issued 33 citations against the Volks Constructors company in Baton Rouge, LA, with penalties of \$47,600. Four of these citations related to failure to complete the “OSHA Form 301” used for a first report of injury; failure to record 102 injuries on the company’s Log 300; company executives’ certification of Log 300s that were neither correct nor complete; and failure to provide the Log 300 and Form 301 upon request [20].

### WHY LOG 300 RECORDS MATTER

Accuracy in Log 300 reports is important because, along with other workers comp information, they are used by employers to identify hazardous operations needing attention on the job, and by government agencies to set priorities for their limited research and enforcement resources. Moreover, injured workers, whose injuries or illnesses are not acknowledged by their employers, often cannot obtain needed medical treatment, rehabilitation, and compensation.

As the publisher of the *Oakland Tribune* noted in its editorial: “If the safety record constructed by KFM is built on doctored injury reports, a facade of safety is created. If other firms follow the same practice, it means that an unknown number of work-related injuries and illness go unreported. That inflates safety

and downplays injuries and risks. It’s deceptive, giving state officials and the public a false picture of workplace safety, which in turn can lead to more hazardous conditions and injuries” [14].

In giving a false picture of workplace safety, BBS programs also undermine the basis for essential regulatory activities to ensure employers comply with safety rules. In California, for example, the state legislature passed in July 2006 a very modest \$1.5-million budget augmentation to hire an additional 15 Cal/OSHA inspectors. But in August, Governor Arnold Schwarzenegger eliminated the funds earmarked for hiring on the grounds that new inspectors are “not necessary” as “workplace injuries and fatalities in California are well below the national average” [21].

## REFERENCES

1. “How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?,” Kenneth D. Rosenman, et al., *Journal of Occupational and Environmental Medicine*, pp. 357-365, V. 48, No. 4, April 2006.
2. “An Estimate of the U.S. Government’s Undercount of Nonfatal Occupational Injuries,” J. Paul Leigh, et al., *Journal of Occupational and Environmental Medicine*, pp. 10-18, V. 46, No. 1, January 2004.
3. “Occupational Injury and Illness Surveillance: Conceptual Filters Explain Under-reporting,” Lenore S. Azaroff, et al., *American Journal of Public Health*, pp. 1421-1429, V. 92, No. 9, September 2002.
4. Jill Tucker and Sean Holstege, “Injury record questioned—Nearly perfect safety reports cast doubt on accuracy,” *Oakland Tribune*, April 7, 2005.
5. “San Francisco-Oakland Bay Bridge Worker Safety: Better State Oversight Is Needed to Ensure That Injuries Are Reported Properly and That Safety Issues Are Addressed,” California State Audit/Bureau of State Audits, Report 2005-119, February 9, 2006; accessible at: [www.bsa.ca.gov/reports/summary.php?id=495](http://www.bsa.ca.gov/reports/summary.php?id=495)
6. California Division of Occupational Safety and Health, Policies and Procedures, C-1B, accessible at: [www.dir.ca.gov/DOSH/Pol/P&pc-1b.htm](http://www.dir.ca.gov/DOSH/Pol/P&pc-1b.htm)
7. “Study Finds U.S. Undercounts Workplace Injuries, Illnesses,” Kris Maher, *Wall Street Journal*, May 1, 2006.
8. KFM Notice of Appeal, which is part of the public section of the case file for inspection #307340513 held at Cal/OSHA’s Oakland District Office.
9. All quotes from the KFM Safety Incentive Programs are from the actual documents provide by KFM to Cal/OSHA, which are part of the public section of the case file for inspection #307340513 held at Cal/OSHA’s Oakland District Office.
10. All quotes from KFM employees are from the Cal/OSHA inspector’s notes that are part of the public section of the case file for inspection #307340513 held at Cal/OSHA’s Oakland District Office. In addition, the *Oakland Tribune* posted on its website on June 2, 2006, a Cal/OSHA-generated summary of key employee testimony. The Cal/OSHA citations and employee testimony summary are posted at: [www.insidebayarea.com/portlet/article/html/fragments/print\\_article.jsp?article=3891306](http://www.insidebayarea.com/portlet/article/html/fragments/print_article.jsp?article=3891306)

11. SRS documents containing confidential employee medical information are not part of the public section of the case file for inspection #307340513. However, redacted interviews with SRS managers and some employee work status reports are part of the public section of the inspection case file.
12. The public section of the inspection case file includes redacted interviews with IHI environmental managers and copies of industrial hygiene reports up to June 2004 when KFM declared IHI Environmental to be a "confidential consultant" to its attorneys. All correspondence and reports after that date then became confidential documents.
13. Cal/OSHA interviewed then current KFM Safety Director Tim Dare on May 10, 2006, and former KFM Safety Director Robert Hughes on May 11, 2006. Redacted interview notes are in the public section of the inspection case file.
14. "Doctored safety records paint false picture," Editorial, *The Argus*, September 23, 2006.
15. A compilation of reports and analysis is accessible on the "Behavioural Safety" page of the website of *Hazards* magazine, accessible at: [www.hazards.org/bs/index.htm](http://www.hazards.org/bs/index.htm)
16. "Weyerhaeuser Fires Plant, Safety Managers for Recordkeeping Abuses," James L. Nash, *Occupational Hazards*, November 2004.
17. "Edison Says Safety Data Were Rigged," Elizabeth Douglass, *Los Angeles Times*, October 22, 2004.
18. "OSHA Fines GM \$160,000 for Recordkeeping, Safety Violations," James L. Nash, *Occupational Hazards*, October 13, 2004.
19. "Paper Company Fined \$170,000 by OSHA for Alleged Recordkeeping Failures," Josh Cable, *Occupational Hazards*, November 30, 2005.
20. "OSHA Cites Baton Rouge Firm for Recordkeeping," *Occupational Hazards*, November 17, 2006.
21. "Vetoes may risk safety of workers," Erik N. Nelson, *Oakland Tribune*, July 15, 2006.

Direct reprint requests to:

Garrett Brown  
 828 Richmond St.  
 El Cerrito, CA 94530-2925  
 e-mail: [gdbrown@igc.org](mailto:gdbrown@igc.org)