
California Underground Facilities Safe Excavation Board

October 15-16, 2018

Agenda Item No. 5 (Information Item) – Staff Report

Discussion on Enforcement Philosophy

Presenter

Tony Marino, Executive Officer

Recommendation

Review and discuss attached Enforcement Philosophy in anticipation of adoption as a Board policy when Board policies are subject to review in early 2019.

Background

The Dig Safe Board has yet to develop enforcement regulations and yet to perform an investigation, yet in the public reports, speech of members and staff, and overall approach to beginning its program it has already implied an approach to its legislative charge. What neither Board nor staff has done thus far, however, is to detail such a philosophy in writing. Articulating an enforcement philosophy as a policy in writing has the following benefits:

1. *Asserting leadership.* Regulators are expected, by virtue of their office, to perform a leadership role, whether in the form of setting minimum performance levels or facilitating industry-wide discussions. Significant evidence, discussed below, exists demonstrating the Legislature had leadership in mind in establishing the Board. Articulating a philosophy allows the regulator's mindset to be disseminated further than those in its immediate presence.
2. *Setting expectations.* Regulated entities operate of their own free will. While regulatory compliance is necessary, compliance is generally not sufficient to ensuring safety, and regulator expectations can assist regulated entities in determining how to engage with the regulator and the community in improving safety.
3. *Guiding actions.* Just like regulated entities, regulators have options in how they perform their missions. An enforcement philosophy can assist Board members and staff in determining which tools and strategies are most appropriate. This is especially true in the case of a new regulator such as the Dig Safe Board.
4. *Facilitate continual improvement by disambiguating approach from implementation.* As the Board begins pursuing its mission, challenges will inevitably arise. The ability to recognize and—just as importantly—communicate whether adjustment is needed in the philosophy or in the implementation will allow the Board, its partner agencies, its stakeholders, and the Legislature to intelligently discuss options and minimize the power of counterproductive proposals.
5. *Clarify the Board's role with respect to liability.* While much of the discussions before the Board thus far have focused on safety, liability concerns are ever-present. An enforcement philosophy cannot be complete without a recognition of the role of liability and how the Board and staff should think about it.

The proposed philosophy is not cut from whole cloth, but based on statute, existing Board policies, and informed by safety research and application. It has also been, in part, inspired by the Federal Aviation

Administration's (FAA) Compliance Philosophy, which the agency implemented to improve communication about safety issues—and thus improve safety—by limiting personal liability in reporting non-compliances.

Discussion

Just Culture

“People do not come to work to do a bad job. Safety in complex systems is not a result of getting rid of people, of reducing their degrees of freedom. Safety in complex systems is created by people through practice—at all levels of an organization.”

— Sidney Dekker, *The Field Guide to Understanding Human Error*

Safety failures come in many varieties. Sometimes they result from an employee making a mistake due to improper training; sometimes they are caused by taking shortcuts to save time or money. Occasionally, they result from rigid compliance to policies or procedures. In 2016, a train operator in Spain decided to walk off the train at a stopover, leaving 109 passengers stranded on the tracks with no conductor because he had exceeded his duty time limits, violating health and safety code.¹

While the reasons for failures vary, the tools of a regulator or service provider's management in rectifying these failures are more limited. James Reason, guru on organizational accidents and professor at the University of Manchester, writes that nothing is new in error management, and that “the rope's end & the whip were probably among its first instruments.”² Punishment, however, has a predictable effect: it makes a person subject to punishment less likely to come forward and divulge their error. In situations where the results of errors are clearly evident, this effect is not of great importance (except, of course, to the person getting punished). A regulator or an employer who only investigates high-consequence safety events will not see an effect.

Modern safety approaches, however, stress the importance of *safety culture*, an important aspect of which is that near-misses, reported by front line employees, are recognized and managed as precursors to safety events. In this case, punishing errors can seriously undermine a safety culture. Recognizing the need for pilots to report safety incidents, the FAA implemented a confidential close call reporting system where aircraft personnel can report safety problems—even those as a result of their own non-compliances—confidentially with no reprisal. This system was implemented after a TWA flight in 1974 hit the side of a mountain, killing all aboard. The cause—a misunderstanding of responsibilities between the flight crew and air traffic control—had almost caused a United Airlines flight to suffer the same fate a week earlier (and likely to other flights in the past), but information about the problem wasn't broadly shared.³ The FAA's example has led the California Public Utilities Commission (CPUC) to consider the implementation of a similar confidential reporting system.⁴

Such approaches are especially valuable the more tightly the liability for an error lies with an individual, such as a pilot, doctor, or other professional. The importance of anonymity decreases as responsibility becomes more diffuse, such as with a large company.

While modern safety management systems have shied away from the punishment of unintentional error, their responses to intentional or reckless non-compliance remain punitive, and—if anything—the punishments have become more severe. The detrimental effect of punitive measures on safety culture lessens when the non-compliance arises from these causes, as no effective safety culture exists to damage. In these cases, the problem is not a result of an error, and financial or other punitive measures are more

¹ Sidney Dekker, “Malicious Compliance,” *Hindsight*, Volume 25, 2017.

² James Reason, *Managing the Risks of Organizational Accidents*, Ashgate, 1997, p. 125

³ National Transportation Safety Board, NTSB-AAR-75-16, November 26, 1975.

⁴ CPUC, “Safety Action Plan and Regulatory Strategy: 2017 Update,” February 9, 2017.

likely to effect behavior change.

FAA's Compliance Philosophy⁵

“People feel helpless in the face of ever-present dangers and, while the familiar reactions to incidents and events, such as ‘write another procedure’ and ‘blame and train,’ may not actually make the system more resistant to future organizational accidents, they at least serve the anxiety-reducing function of being seen to do something—and blaming those at the sharp end deflects blame from the organization as a whole.”

-- James Reason, Managing the Risks of Organizational Accidents

Accident rates in the airline industry are extremely low compared to the other modes of transportation, but so is the travelling public's tolerance for them. The FAA, in seeking means to further improve civil aviation safety, has informed its regulatory approach with current human factors knowledge and modern safety culture research, considering the ways in which people interact with technology and with the organizations of which they are apart. Its approach recognizes that unsafe latent conditions can exist in any organization, and that the first people to see these unsafe conditions will be the people on the ground that work in the conditions every day.

Recognizing that many deviations from regulatory compliance are results of flawed procedures, simple mistakes, lack of understanding, or diminished skills, and recognizing the need to lead the industry in developing a strong safety culture including an open and transparent sharing of information, the FAA has adopted a goal to use the most effective means to return a regulated individual or entity to full compliance and prevent recurrence. To determine the most effective means, the agency has adopted a Compliance Philosophy to determine when the individual or entity may be able to cure deviations through a corrective action (“Compliance Action Order”), and when the deviations are intentional, reckless, or otherwise present an unacceptable safety risk, thus require significant financial penalties or license revocation (“Enforcement Action Order”).

The Board and FAA are different in significant ways that may limit the Board's ability to implement a similar philosophy with its regulated community. In civil aviation, the entire industry is affected by every accident, thus every accident is unacceptable. This is in contrast to the excavation and utility industry in California, as evidenced by the more than 5,000 natural gas pipeline hits the state suffers annually. As most incidents do not lead to severe consequences, discussions surrounding individual accidents are as likely to be about who is responsible for paying the damages as they are with preventing recurrence (more on this below). Additionally, FAA is significantly larger than the Board. While the full administrative process of enforcement actions is generally more resource-intensive than ordering and monitoring corrective action, the Board expects to investigate a large number of accidents every year, and the follow-up requirements necessary for effective use of corrective action may be significant. Board investigative staff will need to develop procedures that consider the resources needed to implement a program that relies on requiring corrective action.

Regardless of how the Board and staff implement use of corrective action, there will continue to be a place and a need for punitive measures. Safety performance in a production-focused industry is determined by how internal personnel interact with external forces, and the Board is but one of these external forces. For those who use cost-cutting shortcuts to safety as a calculated means of increasing financial gain, and for those who don't believe they have anything left they want to learn about safety or choose to disregard safety practices, the main tenants that underlie the use of corrective actions do not apply. In practice, this type of mentality is likely demonstrable through refusal to undertake corrective action, failure to successfully comply with corrective action, and repeated violations. In this case, the Board's toolset for eliciting compliance is narrowed, and financial penalties are likely the most appropriate.

⁵ Order 8000.373: “Federal Aviation Administration Compliance Philosophy,” effective June 26, 2015.

Liability at Odds with Safety

Except as otherwise provided by law, a party has the burden of proof as to each fact the existence or nonexistence of which is essential to the claim for relief or defense that he is asserting.

-- Evidence Code Section 500

The Legislature, in passing the Dig Safe Act of 2016, considered the free exchange of safety information as paramount in improving industry safety and the bill's author, Senator Hill, spoke often about how liability concerns thwarted these efforts. In the December 17, 2015 informational hearing, "Dangerous Digs: Why Do Fatal Pipeline Accidents Persist?" he stated, "the real struggle is—and I hate to say it this way—but no one trusts anybody," and "as we've talked about it so far, the conversation always revolves around liability, and who pays the bill, and that's what happens rather than the safety...no one ever knows what happened, or what lessons we could learn." He went on to propose a "lessons learned" pilot in which parties to a handful of accidents would work together to develop case studies. "And maybe I'm just naïve in suggesting it, but it would certainly be helpful in a number of things." No case studies would be developed.

When considering safety, liability is generally considered an effective if somewhat inefficient tool to incite good behavior; liability creates the need for insurance, and insurers provide coverage at a level proportional to the perceived effectiveness of an actor's accident prevention measures. Liability does not, however, facilitate the free exchange of safety information after an accident, as no party to an accident has incentive to volunteer all of the relevant information. Such information may be used against them. Only through discovery—at which point a dispute has become expensive—does such information become available.

Countering this effect was a clearly espoused goal of the author of the Dig Safe Act of 2016. The Board has already adopted as a policy the commitment to a "culture of continuous learning based on the development and free exchange of safety information" (Policy B-04: Values).

This commitment may come into jeopardy if the Board's investigative resources are used to support cost recovery negotiations between two parties. The results of any particular investigation will affect the claims of parties—this is an unavoidable, and perhaps even beneficial, result of investigations. The problem arises, however, when the very proposition of a Board investigation is used as a negotiation tool. Staff has heard through listening to discussions at California Regional Common Ground Alliance meetings complaints about collections agencies pursuing excavators for damages, using the threat of turning them in to regulatory authorities as a tactic.

Statute allows the Board to investigate complaints from affected parties and members of the public (Gov. Code § 4216.19(a)). By design, complaints have little to no marginal cost on the complainant. Maryland's Underground Facilities Damage Prevention Authority charges a \$200.00 filing fee for each complaint and, only six of the seventy-six complaints filed in 2017 came from contractors. Despite the benefits of a low complaint threshold, the Board has limited investigation resources. Should a complaint to the Board be widely understood as effective leverage in claims negotiation, those resources can be overwhelmed. Furthermore, responding to complaints in which one party to a dispute uses Board investigations to advantage can undermine trust in the Board's commitment to its safety mission and sabotage its efforts to encourage free exchange of safety information.

Attachment: Draft Policy B-05: Enforcement Philosophy

Category:	Organization	Policy Number:	B-05
Title:	Enforcement Philosophy		
Adopted:	DRAFT	Resolution:	
Revision:			

The Board, in exercising its statutory responsibility to enforce, and recommend enforcement to other state agencies, does so pragmatically, with the goal of improving the safety of excavations in the vicinity of subsurface installations in the state. The Board has many enforcement tools, and sets forth the following enforcement philosophy to communicate how it intends to use those tools.

1. **Given evidence of unintentional error and lack of evidence of reckless or willful non-compliance, the Board’s enforcement should focus on assisting violators in correcting non-compliances.** The effectiveness of an intervention method in effecting behavior change is dependent on the cause of the misbehavior. All else being equal, most persons in regulated industries want to be both safe and compliant with the law, and for those people, requiring a corrective action—be it education, procedure change, or otherwise—will be more effective in eliciting improvement than financial penalties. Furthermore, punishing unintentional errors can cause companies and—more importantly—people within those companies, not to share safety-related errors. The more localized the penalty to an individual, the greater the negative effect on communication. Increased communication about safety leads to improved safety. Cultures that limit communication limit safety performance.

2. **Given lack of evidence of unintentional error and evidence of reckless or willful non-compliance, the Board should use fines as an enforcement tool.** The effectiveness of an intervention method in effecting behavior change is dependent on the cause of the misbehavior. Safety performance in a production-focused industry is determined by how internal personnel interact with external forces, and the Board is but one of these external forces. Directing an entity to correct intentional or reckless non-compliances will not elicit behavior change, but is instead more likely to create surface-level compliance without addressing the underlying cause of the reckless or willful noncompliance. Repeated violations and failure to implement corrective actions may be indicators of reckless or willful non-compliance. In this case, monetary penalty is the Board’s most effective tool in creating compliance.

3. **Board investigative staff should develop procedures to actively limit the influence of liability in determining what accidents and complaints to investigate.** The Board’s statutory mission is to oversee safety performance, not determine liability in accidents. Persons and companies may make reports and complaints of one-call law violations at little to no cost to themselves. The Board, on the other hand, has limited investigatory resources. Board investigation of

Monitoring Method: Board
Frequency: Biennial

complaints made for liability purposes will encourage further complaints for liability purposes, straining Board resources. Furthermore, a perception that the Board can be a tool by parties to collect damages from each other will undermine trust in the Board's interest and ability in pursuing its safety mission and reduce communication about safety. Board investigations initiated to serve liability purposes can undermine safety communication, thus undermine safety culture in the state.