California Underground Facilities Safe Excavation Board

October 15-16, 2018

Agenda Item No. 8 & 9 (Information Item) – Staff Report

Discussion on Proposed Education Program.

Presenters
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Background
The Dig Safe Board's ("Board") 2018 Plan establishes the identification of relevant education in lieu of fines as a strategic activity, and the Boards' sanctions may include direction to attend relevant education (Gov. Code § 4216.19(e)). In order to recommend or offer education in lieu of financial penalties, the Board must identify relevant, affordable educational curricula and providers. Since no educational curricula was found meeting the necessary requirements, a course specific to excavation near buried infrastructure would need to be created. To better understand the options available in offering courses, a section of this report highlights the advantages and disadvantages of outsourcing, or creating an educational course in-house. This is followed by a section on the resources required to create an in-house course.

At the request of the Board to research national educational efforts, staff contacted one-call centers, asking for information on their educational programs. Data from one-call centers that responded to our request (WI, VA, MS, TX, IA, CA, UT, NM, GA, KS) was used to identify trends in education and a section summarizing this information is provided in this report.

At our August meeting in Westlake village, Board Members and stakeholders discussed the merits of online and classroom course offerings. A section has been included in this report on the advantages and disadvantages of classroom and online course offerings.

The research into establishing an education in-lieu of fines program began in January 2018 and the discussion section below begins with a summary of staff's efforts to date.

Discussion
Research into an education in-lieu of fines program began in January 2018. Staff researched how other states use educational courses to promote safe digging practices. It was discovered that no national standard existed on how courses were used to educate people in the excavation community. It was also discovered that states' educational offerings varied significantly. The most developed programs offer in-person and online instruction. These programs also offer the option of taking classes to satisfy a violation, or for general education.

While researching education in-lieu of fines it was clear that California lacked education with testing that could be used to satisfy a sanction by the Board. A class specific to excavation near buried infrastructure, followed by a test to demonstrate understanding would need to be created. Classes already available, including OSHA #3015 - *Excavation, Trenching and Soil Mechanics* contained material related to excavation near buried infrastructure, but did not focus solely on it. As staff researched what material should

be covered in an education in-lieu of fines course, stakeholder comments from meetings in February and April advised sourcing educational material from the Common Ground Alliance (CGA), a nationally recognized association dedicated to the underground utility industry. Staff research into the educational offerings of other states showed emphasis on the 811 process and states' government code related to underground utilities. Staff recommended that material from the CGA Best Practices Handbook, the 811 process and GC 4216 be included in material used to create courses offered by the Board.

After our June meeting, staff focused on researching how to outsource educational course requirements to organizations with experience creating and hosting educational classes. This involved identifying organizations that could create the needed courses. Staff also researched the internal state requirements to contract with an outside organization. In a meeting with legal counsel, it was discovered that a competitive process would be required to outsource the Board's course creation and three options were available including a request for information (RFI), Request for qualifications (RFQ) and request for proposal (RFP). Staff also researched the minimum standards that should be required of an educational course associated with the Board and the mediums in which the courses should be offered.

At our August Meeting in Westlake Village the possibility of offering courses in-house, conducted by staff, was discussed for the first time. This possibility was not considered earlier due to the staff resources required to offer classroom, on-site, and online courses. To offer all three class types, outsourcing would be necessary. Since the August meeting in Westlake Village, staff has been researching what type of courses could be conducted in-house given the Board's available resources.

Research on one-call centers educational efforts

Staff researched the educational offerings of the nations' one-call centers for trends in the number of individuals educated annually, amount of staff used for education and program managers' thoughts on an overall decline in dig-in accidents. The data analyzed was for general education and not courses taken to satisfy a sanction.

Most one-call centers showed no clear trend in annual attendance. An increase in attendance one year could be followed by a decrease the following year. Some states had fluctuations of greater than 20% in annual attendance, but this was uncommon, and those states were unable to provide rationale for the fluctuation.

The amount of staff available varied significantly by state with Wisconsin having an available staff of eight, while Virginia had a single, full-time employee dedicated to education. Individuals educated annually per instructor ranged from 297 to 1,319.

The reason most cited by program managers for a decrease in dig-in incidents was education. Though the number of people educated on safe digging practices does not show a clear trend of annual increase, as educational efforts continue, the aggregate number of individuals educated is believed to be increasing.

Outsourcing or In-House Creation of Educational Courses

Until our August meeting in Westlake Village, creating an in-house course for education in-lieu of fines was not considered as an option due to the staff resources required. Offering classroom, onsite and online courses taken to satisfy a sanction by the Board would require outsourcing. Organizations selected would create the courses at no cost to the Board, but collect course fees to recoup their costs. Courses offered in Spanish would be a requirement of any provider. The advantages of outsourcing include being able to offer classroom, onsite and online courses, limited use of staff resources to conduct courses and utilizing organizations that specialize in creating educational courses. Disadvantages include having to continually

ensure outsourced courses meet the standards of the Board, not having full control of the courses being offered, likely higher cost to the end-user, and the possibility that organizations are not interested in creating courses for the Board.

Bringing its educational offerings in-house would require the Board to focus solely on classroom courses. To conduct in-house courses with limited resources, the Board would create the course and content, use staff as instructors, and use current office space to host classes. Staff fluent in Spanish would be utilized to teach courses in Spanish. Eventually courses could be offered in additional locations. Geographic information collected from violations could be used to determine the best locations for this type of on-site course, expanding the reach of an in-house educational offering. Advantages of creating in-house courses include having full control of the courses and content being offered and likely lower costs to the end-user. Disadvantages include using staff time to teach courses, and having to create and run an educational program with no prior experience.

Resources Required for In-House Courses

The major challenge to providing an in-house education in-lieu of fines course is the resources necessary to do so. There is a financial aspect as well as a time aspect to account for when determining the feasibility of this approach. The Board can charge for courses, limiting the financial burden, but replacing staff time used to conduct courses is more of a challenge. Adding staff is not as simple as using funds from our courses to hire an instructor. As a state agency, positions must be added through a written request called a Budget Change Proposal (BCP). A BCP is an annual request to change the level of service or funding for activities authorized by the Legislature. This includes all new Board staff positions. Even with a reasonable justification for additional staff, the likelihood of receiving additional positions is unclear and any plans should proceed assuming current staff levels. Eventually the Board could offer on-site courses at locations other than our Northern and Southern California offices. Offering this type of course involves additional costs for travel and accommodations.

Instructor-Led or Online Courses

The most utilized mediums for providing educational courses on excavation near buried infrastructure are instructor-led and online. Understanding the advantages and disadvantages of both is important in understanding how each may be utilized when creating educational courses. While instructor-led courses provide an in-person educational experience, online classes provide convenience and accessibility. Below is a comparison of the advantages and disadvantages of classroom and online educational courses.

Benefits of instructor-led courses include:

- Direct engagement with an instructor who is a subject matter expert
- Engaging with classmates
- Participating in group exercises
- Immediate feedback from questions
- Being able to positively identify students
- Monitoring engagement in course material

Disadvantages of instructor-led courses include:

- Attending classes at set times and locations that may involve long travel times and missed work.
- Using staff time to conduct classes.

Benefits of online courses include:

- 24-hour access to material and testing
- Potentially unlimited number of students

- The ability to take a course anywhere with a computer and internet access.

Disadvantages of online courses include:

- Difficulty taking the course for students who aren't computer savvy
- Not being able to positively identify students
- Not being able to monitor engagement in course material.

Timeline on educational course development

A Board consensus must be reached on how to offer educational courses so staff can pursue the development of an education in-lieu of fines program. Below are the timelines for outsourcing and in-house creation for the rest of the 2018 fiscal year, ending in June 2019.

Outsourcing

October: Obtain Board direction on contracting course creation, conduct market research by calling educational and training institutions.
November: Staff meeting to go over results of market research and then discuss with Board Members assigned to the topic of education.
December: Obtain Board approval for desired RFP, RFI or RFQ process and then draft RFP, RFI or RFQ.
January: Complete a Statement of Work to bid out course creation.
February: Select course content provider.
March-June: Assist selected provider on course creation, annual education and outreach meeting.

In-House

October: Obtain Board direction on in-house course creation, create an implementation plan, identify organizations willing to donate resources.
November: Staff meeting to go over results of an implementation plan and then discuss with Board Members assigned to the topic of education.
December: Begin creating course content, secure instructor trainings for staff.
January-March: Begin curriculum development and instructor trainings for staff.
April-June: Finalize curriculum development and instructor trainings for staff, annual education and outreach meeting.

Recommendation

Staff recommends the Board provide direction to create an in-house educational course used solely to satisfy a sanction by the Board. Additional delivery methods, as well as any offerings for preventative education, would need to be considered by the Board at a future date.