
California Underground Facilities Safe Excavation Board
("Dig Safe Board")

July 13-14, 2020

Agenda Item No. 7 (Information Item) – Staff Report

Discussion on Reasonable Care Standards Development

PRESENTER

Jeff McClenahan, Policy Analyst

SUMMARY

The Dig Safe Board ("Board") is mandated by Government Code § 4216.18 to establish reasonable care standards for excavation involving hand tools within the tolerance zone of marked subsurface installations and for grading on road shoulders and dirt roads. The Board has previously discussed the development of reasonable care standards in 2018 and early 2019 that included enlisting proposals from stakeholder groups such as the California Regional Common Ground Alliance ("CARCGA").

In returning to the development of reasonable care standards, staff requests that the Board discuss its current understanding of reasonable care and how it would like staff to structure the Board's approach to these standards into groups of manageable size.

STRATEGIC PLAN

2020 Strategic Objective: Improve Excavation and Location Practice Safety
Strategic Activity: Reasonable Care Standards

BACKGROUND

Statute

Government Code § 4216.18 requires the Board to establish standards on reasonable care for

1. Using hand tools within the tolerance zone with a consideration for any appropriate additional excavating depth if (§ 4216.18b)
 - a. A delineation is in a tolerance zone but is not in conflict (b)(1)
 - b. There is a possibility of additional facilities beneath a located facility (b)(2)
2. Grading on road shoulders and dirt roads, which may include standards for potholing (§ 4216.18c)

Board Meetings and Workshop

During its June 21st, 2018 meeting, the Board discussed the process of standard development and the role that CARCGA could provide. During its August 20th, 2018 meeting, the Board established a list of process and outcome-related expectations for CARCGA to proceed with in the development of a recommendation.

During its January 14th, 2019 meeting, Board counsel Deborah Yang discussed a letter from the CARCGA Subsurface Safety and Incident Prevention (“SSIP”) Committee on the interpretation of § 4216.4, subdivisions (a) and (b), and provided a letter containing an opinion in response to their query.

During its November 8th, 2018, January 14th, 2019, and February 11th, 2019 Meetings, the Board discussed updates on standard development from CARCGA.

On April 24th, 2019, the Board held a workshop on Reasonable Care Standards.

DISCUSSION

Approach to Standards

In order to begin establishing a set of standards on reasonable care which will apply to broad swaths of the diverse universe of excavators, the Board must better understand the operations and practices used by members of the industry and how they approach reasonable care in their own work. With more practical knowledge of the different types of excavation and the ways in which stakeholders safely operate in their daily business, the Board will be better positioned to develop a structure for its approach to developing the standards.

Questions to Guide Board’s Approach

Staff has proposed the following questions for the Board to consider on how to structure its approach to developing standards for reasonable care:

1. Can we identify all the stakeholder groups to which reasonable care standards should apply?
2. Are there several pieces or groups that already exist or naturally fit together that might provide ways to group the approach?
3. In what order should the Board determine standards for these pieces or groups?
4. What questions should we ask stakeholders during workshops?
5. How do we capture the potentially contrasting approaches of excavators and operators in determining reasonable care?

CONCLUSION

The Board is mandated to determine reasonable care standards that bolster the safety of all parties involved in excavation around underground facilities. As this is an abstract concept which is applied differently among excavators and has the potential to impact all excavators in different ways, the Board may wish to split the discussion into several groups of related activities to make the process more manageable. Splitting up the approach will narrow the scope of inquiry into reasonable pieces which will allow for sequential development whereby later concepts will build on the work done in previous sections. Staff anticipates this iterative process to involve stakeholder engagement and discussions to continue over the next several years.

RECOMMENDATION

Staff recommends that the Board discuss the proposed questions and request that staff organize workshops with stakeholders to discuss their existing understandings of reasonable care in excavation practices as the framework for developing reasonable care standards.

ATTACHMENTS

A: Agenda Item No. 4 – June 21, 2018 – *Process for Standard Development*

B: Agenda Item No. 5 – August 20-21, 2018 – *Reasonable Care Standards*

C: Agenda Item No. 6 – January 14, 2019 – *Legal Counsel Opinion on Government Code Section 4216.4, Subdivisions (a) and (b)*

California Underground Facilities

Safe Excavation Board

Item #4

Agenda Item – Staff Report

DATE: June 21, 2018
TO: Members, Underground Facilities Safe Excavation Board
FROM: Tony Marino, Executive Officer
SUBJECT: Process for Standard Development

SUMMARY:

The Legislature, in the Dig Safe Act of 2016, required the Board to develop standards determine the “evidence necessary for excavators and operators to demonstrate compliance” with delineation, locate and mark, and other requirements of the one-call law, the process an excavator should follow in using hand tools in the tolerance zone, and the process for determining the depth of underground facilities in grading activities. The Legislature did not restrict the Board to only these standards, and the Board may choose other standards to pursue as well, but it must be mindful not to cross into general occupational safety and health standards, which are set by the state’s Occupational Safety and Health Standards Board (OSHSB).

The Board should discuss and seek public feedback on the following on the following questions:

- 1) How should the standards balance between the needs to be understandable, auditable, and easily communicated with the need for each actor to customize standard implementation to their particular circumstances?
- 2) Should standards developed by the Board be regulatory, and hence enforceable by the Board, or should they be non-regulatory?
- 3) What is the process by which these standards should be developed?
- 4) What is the process by which the Board would entertain the development of standards in addition to those enumerated in statute?

The Board should also discuss and seek public feedback on staff recommendations at the end of this report.

BACKGROUND:

The Legislature, in enacting the Dig Safe Act of 2016 placed standard development among the central functions of the Board.¹

¹ Gov’t Code § 4216.12(b), § 4216.18.

The Legislature's purpose for requiring the Board to develop these standards was discussed during legislative hearings on the bill. In speaking in support of the bill, Todd Bloomstine, representing the Southern California Contractors' Association, told the Assembly Utilities and Commerce Committee on June 22, 2016 that:

*"What SCCA members have been asking for consistently throughout this process are a set of standards for them to follow in order to discover the underground utilities. Specifically, how often should we pothole? what should the frequency be for potholing? what the distance should be; is there a difference if you're in a rural area or urban area? We trust that this new governing board will come up with a set of standards that we can live with."*²

The bill author's fact sheet supported this intent, stating:

*"The national Common Ground Alliance has developed best practices for the one-call process, but no standards exist for protecting underground pipes and conduits in road grading, in agriculture, in dig-in accident investigation, or in protecting worker safety around pipes in trench work."*³

The Legislature provided guidance to the Board in developing these standards, stating that the standards should not replace existing standards and that the Board should refrain from using data not publicly available in its standard development process (Gov't Code 4216.18 (a)). Aside from this guidance, the Legislature gave the Board broad authority to determine the form of these standards and the process in which to develop them. The Legislature did

Before embarking on standard development, the Board should provide direction to staff on the purpose for the standards and how they relate to regulations, the form the standards are to take, the process for developing them, and a process to entertain the development of standards not enumerated by the Legislature.

DISCUSSION:

Standard What?

Standards, apart from a regulatory context, exist in large part to govern the interaction between technologies and processes. The North American electric power system uses alternating current, oscillating at a standard 60 cycles per second so that the same induction motors may be used throughout. Railroad track gauges in the Great Britain, the North America, and most of Europe place rails 4 feet, 8 ½ inches apart so that locomotives and rail cars can carry their loads across company and jurisdictional lines from origin to destination. Left hand signals were designed in a bygone motoring age so

² http://calchannel.granicus.com/MediaPlayer.php?view_id=7&clip_id=3845&meta_id=148452

³ August 12, 2016.

that a North American driver could indicate his or her intention, to be replaced by rear turn signals, mandated to be amber or red in color to differentiate from other vehicle lighting. The TCP/IP standard protocols exist to ensure that computers across the world can communicate with one another.

The term “standard” has, however, taken on a broader meaning to describe a common and comprehensible process or approach that a spectrum of different actors can use to fulfill a regulatory requirement or demonstrate adequacy in processes whose outcomes are not easily measurable. For instance, the International Standards Organization (ISO) 9000 series of standards describes elements of quality management systems meant to be applicable across a host of industries. ISO 9000 is very broad, however, and has been adapted for more specific applications such as environmental management systems (ISO 14000 series), occupational health and safety management systems (the British Standards Institution’s OHSAS 18000 series), civil aviation safety management systems (International Civil Aviation Organization’s Doc 9859), and pipeline safety management systems (American Petroleum Institute’s Recommended Practice 1173).

Unlike technical standards pertaining to railroad gauge or internet communication protocols, these standards do not directly govern the interaction between different systems or organizations but focus on a standard way in which an organization may approach a task or requirement. When effectively used, these types of standard can help an organization’s management to communicate goals internally and to communicate compliance with external stakeholders.

Implicit in the value of a standard is its application to different entities faced with the same task or problem; therefore successful standards tend to be developed with broad participation by entities with an interest in using it. In contrast, creation of a “best practice” has no such implication and may be hatched out of a consultant’s broad experiences or created in-house by an individual firm and marketed as a “best practice.” The more a “best practice” is developed using broad participation, the less distinguishable it is from this broader definition of a standard.

The Legislature did not specify the nature of the standards the Board is to develop, but those enumerated in Gov’t Code § 4216.18 have elements of standards in both the narrow and the broader sense. Subdivision (a) of § 4216.18 requires the Board to determine “evidence necessary for excavators and operators to demonstrate compliance” with delineation, locate and mark, and other requirements of the one-call law, which clearly has value in assisting communication to the Board and to others. Subdivisions (b) and (c), on the other hand, focus on the process an excavator should follow in using hand tools in the tolerance zone and in determining the depth of underground facilities in grading activities, respectively.

Standards: Means-Ends/Micro-Macro

Standards, in the broader sense of a common and comprehensible process or approach to manage quality, may take many forms depending on how comprehensive or precise they may need to be. *Prescriptive standards*, like track gauge and internet communication protocols are simple to understand, communicate, and test, but they have the characteristic that they limit the method by which a particular goal may be accomplished. This is desirable when the goal is compatibility of diverse products. This type of standard is typically contrasted with *performance-based standards*, which are meant to provide more flexibility in reaching an end goal. State policymakers have encouraged through statute the use of performance-based regulations, requiring agencies to consider using performance standards and do so when performance standards would be reasonably expected to be as effective and less burdensome than a prescriptive standard counterpart.⁴

One challenge in using performance standards is that the term is not always well-defined and used inconsistently. As the authors of the National Academy of Sciences report *Designing Safety Regulations for High Hazard Industries*⁵ explain, the term “performance-based”

“is sometimes used in reference to regulations that require firms to achieve certain ends but without specifying the means of compliance. At other times it is used in reference to regulations that do not specify ends but require firms to apply management means while giving them flexibility in customizing those means to circumstances.”

The authors instead categorized standards along two axes:

- 1) Does the standard apply to the means or the process, or does it focus on the ends or outcome?
- 2) Does the standard outline specific steps or measures, or does it describe management-level activities?

The authors redefine “prescriptive” and “performance-based” within this matrix, as seen in **Table 1**.

	Means	Ends
Micro	<i>Micro-means</i> "Prescriptive"	<i>Micro-ends</i> "Performance-based"
Macro	<i>Macro-means</i> "Management-based"	<i>Macro-ends</i> "General duty/liability"

Table 1: Four basic standard design types, as defined in [5].

⁴ Government Code § 11340.1.

⁵ National Academies Transportation Research Board Special Report 324; “Designing Safety Regulations for High-Hazard Industries”; 2017; DOI 10.17226/24907; <http://nap.edu/24907>

Any individual standard document may have elements of multiple types of standards, but often one dominates. Under this terminology, rail gauges, turn signals, and internet protocols would all be considered predominantly *micro-means* or “prescriptive” standards, while the quality and safety management systems would largely be considered *macro-means* or “management-based” standards. The federal Occupational Safety and Health Administration’s (OSHA) permit-required confined spaces standard⁶ has both *micro-means* (“prescriptive”) and *macro-means* (“management-based”) elements, as it was drafted to provide employers with broadly defined requirements but leave the implementation details of developing programs and procedures to individual employers, as an employer is more familiar with the conditions of the confined spaces under his or her control than anyone else.⁷ The under these definitions, standard would not be considered “performance-based”, though it is often colloquially referred to as such.

Standards and Regulations

Different industries have different relationships with standards. Most standards come and go without the touch of regulation, based instead on an industry’s changing consensus (such as with American National Standards Institute (ANSI) standards for computer languages) or competition in the marketplace (as JVC’s VHS format would outcompete Sony’s Betamax, and Sony’s Blu-Ray would win out over Toshiba’s HD DVD), both of which are often driven by technological innovation.

Standards pertaining to safety, however, often have an explicit relationship with government regulation. The Williams-Steiger Occupational Safety and Health Act of 1970 explicitly directed OSHA to adopt standards as regulations,⁸ and California’s OSHSB within Cal/OSHA performs the standard/regulation development role for the state.

Pipeline safety standards, on the other hand, are formally separate from federal pipeline safety regulations, but the Office of Pipeline Safety within the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) incorporates a many third-party safety standards by reference.⁹ The Dig Safe Act of 2016 did not specify whether standards developed by the Board should be regulatory or non-regulatory.

Whether the Board chooses to create regulatory or non-regulatory standards has consequences for what the final standards might be. The authors of *Designing Safety Regulations for High Hazard Industries* focused on the development of safety regulations, and identified three factors in selecting a regulatory design:

⁶ Title 29, Part 1910, Section 146, Code of Federal Regulations

⁷ Letter from Thomas H. Seymour to Jon P. Moldsted, June 21, 1995. <https://www.osha.gov/laws-regs/standardinterpretations/1995-06-21-0>

⁸ 29 CFR 1910.1(a).

⁹ 49 CFR 192.7, 49 CFR 195.3.

- The nature of the problem to be solved,
- The characteristics of the regulated industry, and
- The regulator's resources and capacities.¹⁰

Specifically, the more management-based the standard, the more difficult the oversight of compliance. This challenge posed by the third bullet above is not solely the regulator's, however, as discussed above. The more abstract the standard, the more difficult for partners, insurance companies, and firm employees to evaluate adherence, and the more difficult for management to determine whether the standard meets its needs.

RECOMMENDATION:

Staff recommends that the standard development process should be a different process from the regulatory process, being more stakeholder-led and less staff-led, and much of what follows is predicated on this recommendation.

The desire by some parties in advocating for or in accepting as reasonable the idea that the Board develop standards appears to have stemmed not from a vacuum of regulatory authority but from the lack of a recognized and effective forum to test ideas and resolve the various industry positions into common, agreed-upon procedures for protecting safety in excavations around buried facilities. The national Common Ground Alliance's Best Practices process has some standards related to excavation process, but its focus has been primarily on the one-call process. The California Regional Common Ground Alliance (CARCGA), which is the state's only non-profit entity devoted to damage prevention and open to participation by operators and excavators alike, appeared to have limited participation and no clearly-outlined process by which consensus in the meeting room could manifest itself in changes in the field.

Staff believes that, should the Board provide a role to CARCGA in the standard development process, it would promote participation in CARCGA by both excavators and operators.

Staff recommends that the Board not, however, cede its statutory authority as the state's body responsible for the standard development process. The Board should provide guidelines for what it expects out of a standard. These guidelines may be both process-based, such as requiring CARCGA demonstrate broad participation by the entities affected, and outcome-based, such as flexibility sufficient so that actors of various sizes may be able to comply. The Board should also expect CARCGA to come back to the Board for approval of the standard, at which point the Board may choose to accept, modify, or reject the standard.

¹⁰ pp. 90-100.

Tasking CARCGA with these responsibilities may deem CARCGA to be an advisory committee of the Board under the Bagley-Keene Open Meeting Act, with all of the Act's associated protections and restrictions. Most of these requirements may be fulfilled without significant effect on the way that CARCGA currently runs meetings (participation by public, notice and agenda, etc.), but some requirements—particularly regarding teleconferences, might pose challenges. If CARCGA chooses to take on this role, it should, with the assistance of staff, develop a clear understanding of Bagley-Keene Open Meeting Act requirements and propose to the Board how it would fulfill those requirements.

As this activity is proposed to be stakeholder-led and not staff-led, the resulting standards should not be regulatory. If the Board believes that a standard should be added to regulation—or if CARCGA recommends it—staff can begin the regulatory process. The downside of a non-regulatory standard is that no one needs to follow it, and without an enforcement entity monitoring, its effectiveness is not always easy to determine. The benefit of a non-regulatory standard, however, is that it can be easily adjusted if it isn't working as imagined without the results being distorted by a fear of regulatory enforcement. The Board should expect that it might want to place some of its standards into regulation, but this approach will provide a flexible test period for determining effectiveness before doing so.

The Board should determine outcome-based expectations for each standard on a case-by-case basis. Some standards may be well-suited to *micro-means* (“prescriptive”) approaches while others may make more sense at the *macro-means* (“management-based”) level. In setting its expectations, the Board should consider its strategic goals and objectives. Currently, *standard development* falls under the strategic objective of continual improvement, so a monitoring component might be a reasonable expectation to set.

ATTACHMENT:

SB 661 Fact Sheet, August 12, 2016.



Senator Jerry Hill, 13th Senate District

SB 661 – Dig Safe Act of 2016

IN BRIEF

California has the two most recent excavation-related gas pipeline fatalities in the country. On Friday April 17, 2015 a front loader in Fresno came into contact with a 12-inch high pressure natural gas transmission pipe, causing an explosion that injured eleven people. One person died as a result, and—eight weeks after the blast—one remained hospitalized. Late last year, on November 13, an agricultural contractor died when he hit a backbone gas transmission pipeline while ripping a field outside Bakersfield. Accidents such as this are the result of unsafe practices that Californians undertake all the time. Roughly 5,000 of California’s natural gas pipelines are hit every year, and it is estimated that roughly half of them occur because the excavator failed to use the free 8-1-1 service so that pipes can be located and marked before digging. The safety hazard associated with digging into natural gas pipelines has hung over the Legislature for a long time—at least since 2004, when five laborers were killed in Walnut Creek when a petroleum pipeline exploded after it was struck with a backhoe.

THE APPROACH

The strategy that SB 661 takes to finally tackle this problem is to:

- 1) **Improve enforcement.** Right now, the law that requires excavators to call 811 and have utility lines marked is only enforceable by the AG, a district attorney, or in a limited fashion by other agencies. What this means is that the law is only enforced when something terrible happens—in which case other laws come into play anyway—so unsafe behavior is not prevented before injuries and fatalities occur.
- 2) **Clarify the law.** Widespread disregard of the one-call law exists partially because of the lack of enforcement but also because the law is so unclear. In some cases, such as in normal agricultural operations, the law applies but is not followed because it is unrealistic. Different, more applicable procedures are needed to better safeguard those operations.
- 3) **Develop a venue for discussions to improve excavation safety.** In the many discussions since December 2014 (which include 8 large, 25+ participant meetings), the stakeholders have discovered that many complicated aspects to safe excavation have not been widely discussed. Some of these are: What should be done to mitigate the problem of “mismarks”? How should the law apply to deep digs where trenching safety also becomes an issue? What evidence does an underground facility owner or an excavator need to demonstrate compliance with the law?

THE SOLUTION

Following an extensive stakeholder process, SB 661 addresses the safety problems by making clarifications to the one-call law and by creating the **Safe Excavation Board**, an appointed board of excavation stakeholders, funded through fees on utilities, that would perform three tasks:

- 1) Investigate accidents and other “one-call” violations. Currently the greatest barrier to enforcement is that no one is investigating accidents. Those few cases that are investigated are done separately at Cal/OSHA, the PUC, and CSLB, and therefore no broad conclusions may be drawn from them. The board investigations and recommendations would be forwarded to existing regulatory authorities for enforcement, or, for those entities over whom there is no existing appropriate authority, enforcement is performed by the board itself.
- 2) Develop standards for safe excavation. The national Common Ground Alliance has developed best practices for the one-call process, but no standards exist for protecting underground pipes and conduits in road grading, in agriculture, in dig-in accident investigation, or in protecting worker safety around pipes in trench work.
- 3) Coordinate education and outreach efforts. Many utility operators have outreach requirements, but these efforts are not monitored or coordinated. Also, the board would fund grants to non-utility organizations to perform targeted outreach.

California Underground Facilities Safe Excavation Board

August 20-21, 2018

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

Reasonable Care Standards

Presenter

Tony Marino, Executive Officer

Recommendation

The Board should set several process and outcome expectations for the California Regional Common Ground Alliance (CARCGA) in proposing standards for Board adoption in compliance with the reasonable care standard requirement in Gov't Code §§ 4216.18(b) and 4216.18(c).

Background

During the Board's June 21st meeting, the Board and the public discussed the reasonableness of tasking CARCGA with holding stakeholder discussions to develop statutorily-mandated standards for reasonable care in excavating around buried infrastructure in specific circumstances (Gov't Code §§ 4216.18(b), (c)). While CARCGA would facilitate the discussions and make recommendations, the Board would not and could not delegate its statutory responsibility. The Board may consider and approve, modify, or reject a CARCGA-recommended standard to comply with statute. As the ultimate responsibility remains with the Board, it would be reasonable for staff to provide CARCGA with expectations of what constitutes an acceptable recommendation as well as conditions on what process elements CARCGA should undertake in its efforts.

Discussion

General Process and Outcome Expectations

Process: While CARCGA's process will be different from the Board's processes, and while staff will not want to dictate the particulars of how CARCGA runs its business, CARCGA will want to have a process that the Board has confidence in. Board confidence will likely require processes that include meetings that are:

- 1) Open to the public
- 2) Noticed in advance
- 3) Available for attendance both in-person by telephone or webcast
- 4) In ADA-compliant locations

Additionally, Board confidence will likely require participation by persons affected by the proposed standard. Consensus need not be reached, but all stakeholder groups should feel they had equal access to participation in the process.

Outcome: The Board will likely have outcome-based expectations of any proposed standard. During the

Board’s June 21st meeting, the Board and the public discussed the different types of standards, including those that were prescriptive, performance-based, and management-based. The framework discussed used the matrix seen in **Table 1**.

	Means	Ends
Micro	<i>Micro-means</i> "Prescriptive"	<i>Micro-ends</i> "Performance-based"
Macro	<i>Macro-means</i> "Management-based"	<i>Macro-ends</i> "General duty/liability"

Table 1: Four basic standard design types, as defined in [1].

Staff recommends, at least for the statutorily-mandated standards (Gov’t Code § 4216.18), that the Board promote prescriptive standards where possible. The management-based standards—such as those for safety management systems—are usually the best choice when the conditions in which the standard must operate and are highly varied and personnel from various different levels of an organization must have well-defined rolls. The § 4216.18 standards are sufficiently narrow, however, to make prescriptive standards realistic. Prescriptive standards can breed common training, can make self-auditing easier, and provide a clarity that fosters accessibility to smaller operators. For these reasons, and as the actions required under these standards will require coordination and understanding between persons in different organizations, the benefit of clarity of prescriptive standards likely outweighs the benefit of flexibility provided by management-based standards.

The Board will likely have other outcome-based expectations of any standards. The standards should promote both worker and public safety, and they should allow both large and small operators to be able to comply.

Standard-Specific Expectations: The Board will likely have standard-specific expectations for both § 4216.18 (b) and § 4216.18 (c) based on the experience of Board members. CARCGA should consider several issues or questions during the discussions it facilitates.

Staff Recommendations

Staff recommends the following process-related and outcome-based expectations of CARCGA in developing recommendations for standards:

Process:

- (1) Notice meetings in advance
- (2) Make meetings open to public
- (3) Make a physical location in Northern & Southern California available for meeting attendance, as well as allowing participation through conference line or webcast
- (4) Hold meetings in locations with ADA compliant access
- (5) Demonstrate participation by individuals from all stakeholder groups who are affected by the standard

Outcome:

- (1) Promote both public and worker safety
- (2) Be prescriptive to the extent feasible.
- (3) Both large and small actors should be able to comply with the standards.

¹ National Academies Transportation Research Board Special Report 324; “Designing Safety Regulations for High-Hazard Industries”; 2017; DOI 10.17226/24907; <http://nap.edu/24907>

- (4) If there are multiple options achieve the same goal, all should be available to the extent feasible and to the extent that they do not conflict with any of the above principles.

Staff recommends the following expectations specific to the statutorily-mandated standards described in Gov't Code § 4216.18 (b) and § 4216.18 (c):

§ 4216.18(b)

(b) What constitutes reasonable care, as required by paragraph (1) of subdivision (a) of Section 4216.4, in using hand tools around subsurface installations within the tolerance zone, considering the need to balance worker safety in trenches with the protection of subsurface installations. As part of determining reasonable care, the board shall consider the appropriate additional excavating depth an excavator should make if either of the following occur:

- (1) The subsurface installation is delineated within the tolerance zone but it is not in conflict with the excavation.*
- (2) The location of a subsurface installation is determined, but additional subsurface installations may exist immediately below the located subsurface installation.*

Staff recommends the following expectations to provide to CARCGA in making recommendations for standards for 4216.18 (b). CARCGA should:

Paragraph (1):

- (1) Consider possible interpretations of the phrase “in conflict.” How does the choice of interpretation impact the meaning of the Gov't Code § 4216.4(a)?
- (2) Identify where the allowance of pneumatic or power-operated tools within the tolerance zone might affect the standard (such as proposed in AB 1914 (Flora)).
- (3) Review safe excavation principles in trenches, including OSHA and Cal/OSHA regulations, including those regulations which consider soil conditions. Is there a tension between worker safety and hand tool use?
- (4) Consider what role the operator should have in determining the exact location of deeply buried subsurface installations? What sort of documentation should be provided to the excavator by the operator? After the exact location has been determined, what types of documentation should be provided to the operator by the excavator?
- (5) Consider whether best practices exist that may be used in this situation that, because of expense or other reasons, may not be widely available to the excavating or locating community?

Paragraph (2):

- (1) Consider what additional subsurface installations may be present, which may include abandoned lines. Is this different for different types of subsurface installations?
- (2) Determine what guidance exists to indicate how far separated might an additional subsurface installation be from the first one found. Is this separation equal radially? Or might one expect different vertical and lateral separations?
- (3) Consider whether best practices exist that may be used in this situation that, because of expense or other reasons, may not be widely available to the excavating or locating community?

§ 4216.18(c)

(c) What constitutes reasonable care, as required by paragraph (1) of subdivision (a) of Section 4216.4, in grading activities on road shoulders and dirt roads which may include standards for potholing.

Staff recommends the following expectations to provide to CARCGA in making recommendations for standards for 4216.18 (c). CARCGA should:

- (1) Determine if standards for reasonable care in the situations described here differ from general roadbuilding activities. If so, how?
- (2) Identify what circumstances might make a subsurface whose exact location has been determined in one location be at a different depth at a nearby location.

**California Underground Facilities Safe Excavation Board
("Dig Safe Board")**

January 14, 2019

Agenda Item No. 6 (Information Item) – Staff Report

Legal Counsel Opinion on Government Code Section 4216.4, Subdivisions (a) and (b)

Presenter

Deborah Yang, Legal Counsel

Background

In a letter dated December 5, 2018, the Subsurface Safety Incident Prevention Committee ("SSIP") of the California Regional Common Ground Alliance ("CARCGA") requested a written legal interpretation of Government Code section 4216.4, subdivisions (a) and (b). SSIP stated that "[d]uring discussions of the California Regional Common Ground Alliance (CARCGA) Subsurface Safety Incident Prevention (SSIP) committee meetings there has been concern that California Government Code (CGC) Sections 4216.4 (a) and 4216.4 (b) are at odds with each other" and that "[s]ome members of CARCGA have been told they are not in compliance with 4216 et al. because they did not contact the operator for more information as they did not find the subsurface facility operators' line within the tolerance zone."

Discussion

Government Code section 4216.4, subdivision (a), provides (emphasis added):

(a) (1) Except as provided in paragraph (2), if an excavation is within the tolerance zone of a subsurface installation, the excavator shall determine the exact location of the subsurface installations in conflict with the excavation using hand tools before using any power-driven excavation or boring equipment within the tolerance zone of the subsurface installations. In all cases the excavator shall use reasonable care to prevent damaging subsurface installations.

(2) (A) An excavator may use a vacuum excavation device to expose subsurface installations within the tolerance zone if the operator has marked the subsurface installation, the excavator has contacted any operator whose subsurface installations may be in conflict with the excavation, and the operator has agreed to the use of a vacuum excavation device. An excavator shall inform the regional notification center of his or her intent to use a vacuum excavation device when obtaining a ticket.

(B) An excavator may use power-operated or boring equipment for the removal of any existing pavement only if there is no known subsurface installation contained in the pavement.

(3) An excavator shall presume all subsurface installations to be active, and shall use the same care around subsurface installations that may be inactive as the excavator would use around active subsurface installations.

Government Code section 4216.4, subdivision (b), provides (emphasis added):

(b) If the exact location of the subsurface installation cannot be determined by hand excavating in accordance with subdivision (a), the excavator shall request the operator to provide additional information to the excavator, to the extent that information is available to the operator, to enable the excavator to determine the exact location of the installation. If the excavator has questions about the markings that an operator has placed, the excavator may contact the notification center to send a request to have the operator contact the excavator directly. The regional notification center shall provide the excavator with the contact telephone number of the subsurface installation operator.

As explained in the draft opinion letter to SSIP, considering the express language and apparent purpose of Government Code section 4216.4, which is to prevent damage to subsurface installations, subdivisions (a) and (b) are not contradictory. The statute requires an excavator to (1) determine the exact location of subsurface installations that are in conflict with the excavation; and (2) if the excavator cannot find the exact location of the subsurface installations that are in conflict with the excavation, the excavator has a duty to ask the operator for more information to do so.

Staff believes that an opinion letter from legal counsel in response to SSIP's request will help explain the requirements under Government Code section 4216.4, subdivisions (a) and (b), and resolve confusion among members of CARCGA.¹

Attachments: Draft Opinion Letter to SSIP
Opinion Request Letter from SSIP, December 5, 2018

¹ Past or contemporaneous interpretation by an administrative entity of a provision it is charged with implementing, is accorded considerable weight, and courts generally will not depart from such construction unless it is clearly erroneous or unauthorized. (*Sara M. v. Superior Court* (2005) 36 Cal.4th 998, 1011.)



California Dig Safe Board

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EXECUTIVE OFFICER
Tony Marino

**AGENDA ITEM NO. 6 (JANUARY 14, 2019)
ATTACHMENT TO STAFF REPORT
DRAFT OPINION LETTER**

Steve Woo, Co-Chair
Thomas Young, Co-Chair
Subsurface Safety Incident Prevention Committee
California Regional Common Ground Alliance
387 Magnolia Ave., Suite 103-539
Corona, CA 92789

RE: Government Code section 4216.4, subdivisions (a) and (b)

Dear Mr. Woo and Mr. Young,

In your letter dated December 5, 2018, you requested a written legal interpretation of Government Code section 4216.4, subdivisions (a) and (b), stating that “[d]uring discussions of the California Regional Common Ground Alliance (CARCGA) Subsurface Safety Incident Prevention (SSIP) committee meetings there has been concern that California Government Code (CGC) Sections 4216.4 (a) and 4216.4 (b) are at odds with each other” and that “[s]ome members of CARCGA have been told they are not in compliance with 4216 et al. because they did not contact the operator for more information as they did not find the subsurface facility operators’ line within the tolerance zone.”

Government Code section 4216.4, subdivision (a), provides that, except in certain specified situations where power-operated or boring equipment may be used, an “excavator shall determine the exact location of the subsurface installations in conflict with the excavation using hand tools before using any power-driven excavation or boring equipment within the tolerance zone of the subsurface installations” and “[i]n all cases the excavator shall use reasonable care to prevent damaging subsurface installations.” However, “[i]f the exact location of the subsurface installation cannot be determined by hand excavating in accordance with subdivision (a),” the excavator is required under Government Code section 4216.4, subdivision (b), to “request the operator to provide additional information to the excavator, to the extent that information is available to the operator, to enable the excavator to determine the exact location of the installation.”

Government Code section 4216.4 must be construed in a manner consistent with its context and the apparent purpose of the legislation.¹ The statute must also be interpreted to make the statute workable and reasonable.^{2 3} To determine the intent, a court turns first to the words of the statute, attempting to

¹ *Angelucci v. Century Supper Club* (2007) 41 Cal.4th 160, 168.

² A court will apply “common sense ... and interpret a statute to make it workable and reasonable”; and “[a]ccordingly, the statute should be interpreted to avoid an absurd result.” (*Wasatch Property Management v. Degrade* (2005) 35 Cal.4th 1111, 1122.)

³ “The regulation must be given a reasonable and common sense interpretation consistent with the apparent purpose and intention of the agency, practical rather than technical in nature, and which, when applied, will result in wise policy rather than mischief or absurdity.” (*Aguilar v. Association of Retarded Citizens* (1991) 234 Cal. App. 3d 21, 29.)

give effect to the usual, ordinary import of the language.⁴ The words must be construed in context in light of the nature and obvious purpose of the statute where they appear.⁵ The various parts of an enactment must be harmonized in context of the framework as a whole.⁶

The legislative intent is found in the text of the statute itself, which expressly requires excavators to use reasonable care in all situations to prevent damage to subsurface installations. (Gov. Code, § 4216.4, subd. (a).) The apparent purpose of the statute is to prevent damage to subsurface installations, which may result in injury, death, or damage to other property and the environment.

Subdivision (a) of Government Code section 4216.4 requires an excavator to “determine the exact location of the subsurface installations in conflict with the excavation”. Bearing in mind the apparent purpose of the statute, subdivision (b) of the same section follows that in the event the excavator cannot determine the exact location of the subsurface installation “in accordance with subdivision (a),” the excavator must contact the operator for more information so that the excavator may comply with subdivision (a) to confirm the exact location of any subsurface installations in conflict with the excavation. Subdivision (b) is not an additional and separate requirement to determine the exact location of subsurface installations regardless of whether the subsurface installations are within the tolerance zone and in conflict with the excavation.⁷ Subdivision (b) is intertwined with and pertains to the requirement in subdivision (a) to determine the exact location of subsurface installations in conflict with the excavation by expressly referring to subdivision (a). If an excavator cannot determine the exact location of the subsurface installations in conflict with the excavation (in other words, after hand excavating, the excavator does not know where the subsurface installations in conflict with the excavation are located (e.g., cannot find the subsurface installations within the tolerance zone)), the excavator is required to contact the operator for more information to confirm that there are no subsurface installations in conflict with the excavation or to determine the exact location of the subsurface installations in conflict with the excavation (if they are so indeed present), as the subsurface installations may be marked incorrectly.

This opinion is based exclusively on the facts and circumstances described in your request and is given based upon your representations, express or implied, that you have provided a full and fair description of all facts and circumstances that would be pertinent to our consideration of the questions presented. The existence of any other factual or historical background not contained in your letter might require a conclusion different from the one expressed in this opinion. You have represented that this opinion is not sought by a party to pending private litigation concerning the issues addressed in this opinion. You have also represented that this opinion is not sought in connection with any other litigation involving or investigation by the California Underground Facilities Safe Excavation Board or other state or local agency with jurisdiction to enforce the Dig Safe Act of 2016 (Government Code section 4216 et seq.).

Thank you for your inquiry.

Sincerely,

Deborah Yang
Legal Counsel
California Underground Facilities Safe Excavation Board

⁴ *Id.* at p.28-29

⁵ *Id.* at p.29

⁶ *Ibid.*

⁷ “Tolerance zone” means 24 inches on each side of the field marking placed by the operator in one of three ways. (Gov. Code, § 4216, subd. (u).)



Chairman/President – Marshall Johnson
Vice-Chairman – Paul Evans
Secretary/Treasurer – Ann Diamond

December 5, 2018

Tony Marino – Executive Officer
California Underground Facilities Safe Excavation Board
2251 Harvard Street
Sacramento, CA 95815

Dear Mr. Marino:

During discussions of the California Regional Common Ground Alliance (CARCGA) Subsurface Safety Incident Prevention (SSIP) committee meetings there has been concern that California Government Code (CGC) Sections 4216.4 (a) and 4216.4 (b) are at odds with each other. Some members of CARCGA have been told they are not in compliance with 4216 et al. because they did not contact the operator for more information as they did not find the subsurface facility operators' line within the tolerance zone.

At the November 8th Dig Safe Board meeting legal council for the Board stated that since 4216.4 (b) incorporates section (a) even though the exact wording of "in conflict" is not included, by reference it can be presumed it is.

The CARCGA SSIP committee would like to request a written legal interpretation of CGC 4216.4 (a) and 4216.4 (b) that can be shared with our members and the Public at large.

Thank you in advance,

Steve Woo
Co-Chair SSIP Committee

Thomas Young
Co-Chair SSIP Committee