
California Underground Facilities Safe Excavation Board

August 20-21, 2018

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

Reasonable Care Standards

Presenter

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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.