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

**November 8, 2018**

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

*AB 1914: Initial Discussion on Scope of Implementation*

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***Presenter(s)***

Tony Marino, Executive Officer

***Background***

Governor Brown signed AB 1914 (Flora) into law on September 23, 2018, giving the Board responsibility for developing regulations by July 1, 2020 to determine the conditions under which an excavator may use power-operated or boring equipment prior to determining the exact location of a subsurface installation using hand tools. To develop regulations, the Board will need to address several fundamental questions that will determine the scope of the regulation. Among them are:

1. Where should the regulation fall on the spectrum of "management-based" vs "prescriptive," "discretion" vs "standard"?
2. Should the regulation require communication of intent to use power tools? Are there some power tools that may be used in some circumstances that do not require communication between the excavator and operator?
  - a. If communication is required, should it be a notification requirement or an approval requirement?
  - b. What is the mechanism by which this communication should occur? Should it be facilitated by the one-call centers? How should electronic positive response be incorporated?
3. How should the regulation be monitored?
  - a. How should it be monitored for purpose of enforcing the regulation?
  - b. How should it be monitored for purpose of evaluating the regulation's effect on safety?

***Discussion***

***Exceptions to Hand Tool Use to Determine Exact Location***

In general, Gov. Code 4216.4 (a)(1) requires that

*"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."*

As signed by the Governor, AB 1914 added the following language to Gov. Code 4216.4 (a)(2):

*(C) Beginning July 1, 2020, an excavator may use power-operated or boring equipment, as determined by the board, prior to determining the exact location of subsurface installations. The board shall adopt regulations to implement this paragraph on or before July 1, 2020.*

The exception to the hand tool requirement created by AB 1914 is not the first such exception in statute. Prior to the passage of AB 1914, there were only two exceptions to the hand tool requirement: removal of pavement (Gov. Code 4216.4 (a)(2)(B)), and use of vacuum excavation (Gov. Code 4216.4 (a)(2)(A)). The pavement exception is conditioned only on lack of knowledge of subsurface installations embedded within the pavement,<sup>1</sup> and the vacuum excavation exception has a number of conditions. The following sections will expand on each of the three questions posed above.

### Question 1: Scope of Discretion

Before the Dig Safe Act of 2016 (SB 661), an excavator could use power tools within two feet of a marked utility (“the tolerance zone”) prior to finding the buried utility with the consent of the utility’s owner. SB 661 eliminated this allowance. At the same time, SB 661 for the first time defined the term “hand tool” to be “not powered by any motor, engine, hydraulic, or pneumatic device” (Gov. Code § 4216 (i)). Assemblymember Heath Flora, expressing concern that the requirement to use hand tools in hard soil conditions introduced more soft tissue injuries, introduced language into AB 1914 allowing the use of power equipment as it “eliminates a significant amount of human bending, lifting, twisting and thrusting of tools into soil, all of which are drivers of injury and fatigue.”<sup>2</sup>

The language originally proposed by Assemblymember Flora would have effectively reverted the law to its pre-SB 661 form, allowing power tool use upon consent of the operator. The Board and some stakeholders raised concerns that doing so would open the floodgates to unsafe excavation activity. Additionally, the provision was seen by many as an “operator-only” exception—that operators would consent to their own use of power tools but not to anyone else’s.

At the other end of the spectrum, some discussed very limited and prescriptive power tool allowances, which could lead to specifying the tool, the attachment, the power setting, the soil type, and the installation around which the excavation took place. Such an approach would suffer from the problem of not capturing all excavation types with similar risk profiles and not adapting to changing technology.

The Board will eventually need to settle on what type of approach it wishes to take.

### Question 2: Communication and Agreement

Before looking at how communication among operator, excavators, and the one-call center should be considered in AB 1914 implementation, we examine how the vacuum excavation exception in Gov. Code 4216.4(a)(2)(A) has been interpreted. The vacuum excavation exception has four conditions:

- 1) The purpose is to expose subsurface installations
- 2) The excavator has informed the one-call center of intent to use vacuum excavation when obtaining a ticket
- 3) The excavator has contacted the operator(s) whose installations may be in conflict with the excavation
- 4) The operator has agreed to the use of vacuum excavation

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<sup>1</sup> Which brings to mind the unanswered question of what the appropriate hand tool to use to expose a subsurface installation embedded in pavement.

<sup>2</sup> AB 1914 bill analysis, Senate Committee on Business, Professions and Economic Development, July 2, 2018.

In this way, the vacuum excavation exception both has prescriptive requirements (notification requirements) and grants of discretion to the excavator and operator (excavator and operator agreement).

Anecdotal reports, however, suggest that the direct contact and approval requirements (particularly point 4) may be interpreted in a manner other than a standard agreement between two parties. The “contact” requirement of point 3 is assumed to be fulfilled by the one-call center forwarding the intent from point 2, and the “agreement” condition is interpreted as the operator choosing not to object to the notification.

The purpose of this discussion is not to interpret the meaning of the vacuum excavation requirement, or to opine on what interpretation is better, but to inform Board regulations for AB 1914 by recognizing the difference in interpretation for the similarly situated vacuum excavation exception. What are the implications of implementing a requirement for operator agreement to be “in writing,” as had been discussed during the legislative process? What role should the one-call centers play? Should any “agreement” requirement be documented through electronic positive response?

### Question 3: Monitoring

The Board is unlikely to find an answer in this regulation that is correct to a mathematical precision, but—consistent with its strategic objective on continuous improvement—will need to monitor in some fashion the regulation’s effect on safety. Laws and regulations often have unintended consequences, and if a regulatory agency cannot predict those consequences, it must be attentive to identify and understand them and flexible to adjust the rules or its approach to enforcing the rules to meet its overarching goals. The Board has in prior meetings discussed incident notification and reporting, and similar methods might be used to monitor the efficacy of AB 1914 implementation as well.

Even without AB 1914, the safety of tool use merits observation as many tools can be used safely, but every tool may be used unsafely in unskilled or uncaring hands.

*Attachment: AB 1914 (Flora, Chapter 708, Statutes of 2018)*

## Assembly Bill No. 1914

### CHAPTER 708

An act to amend Section 4216.4 of the Government Code, relating to state government.

[Approved by Governor September 23, 2018. Filed with Secretary of State September 23, 2018.]

#### LEGISLATIVE COUNSEL'S DIGEST

AB 1914, Flora. Underground installations: excavations.

Existing law requires an excavator planning to conduct any excavation to contact the appropriate regional notification center before beginning that excavation, as specified. Existing law, if an excavation is within the tolerance zone of a subsurface installation, requires the excavator to determine the exact location of the subsurface installations in conflict with the excavation using specified tools, except as otherwise provided.

This bill, beginning July 1, 2020, would authorize an excavator to use certain equipment prior to determining the exact location of the subsurface installations, and would require the California Underground Facilities Safe Excavation Board, on or before July 1, 2020, to adopt regulations to implement this provision.

*The people of the State of California do enact as follows:*

SECTION 1. Section 4216.4 of the Government Code is amended to read:

4216.4. (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.

(C) Beginning July 1, 2020, an excavator may use power-operated or boring equipment, as determined by the board, prior to determining the exact location of subsurface installations. The board shall adopt regulations to implement this paragraph on or before July 1, 2020.

(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.

(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.

(c) (1) An excavator discovering or causing damage to a subsurface installation, including all breaks, leaks, nicks, dents, gouges, grooves, or other damage to subsurface installation lines, conduits, coatings, or cathodic protection, shall immediately notify the subsurface installation operator. The excavator may contact the regional notification center to obtain the contact information of the subsurface installation operator. If the operator is unknown and the damage or discovery of damage occurs outside the working hours of the regional notification center, the excavator may follow the instructions provided by the regional notification center through its Internet Web site or the telephone line recorded message.

(2) An excavator shall call 911 emergency services upon discovering or causing damage to either of the following:

(A) A natural gas or hazardous liquid pipeline subsurface installation in which the damage results in the escape of any flammable, toxic, or corrosive gas or liquid.

(B) A high priority subsurface installation of any kind.

(d) Each excavator, operator, or locator shall communicate with each other and respect the appropriate safety requirements and ongoing activities of the other parties, if known, at an excavation site.