California Underground Facilities Safe Excavation Board

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Agenda Item No. 14 (Information Item) – Staff Report

Unmarked Lines

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SUMMARY

In previous meetings, the Board emphasized the importance of distinguishing between "abandoned" lines, as defined by operators and the "unmarked" lines that excavators encounter in the field. Staff analysis highlights that these two issues can be differentiated largely based on how operators respond to locate and mark requests. Additionally, staff identified gaps in the statutory process for determining the operator(s) of unmarked lines. To address these challenges, staff recommends collaborating with the key stakeholders who are best positioned to help prevent unmarked, exposed lines from disrupting future excavations.

STRATEGIC PLAN

2020 Strategic Plan Direction: Improve Accessibility of Buried Infrastructure Location Knowledge and Understanding

> Strategic Activity: Develop Processes to Assist Excavators in Identifying Unmarked and Abandoned Lines

BACKGROUND

Statute requires operators to retain records of abandoned facilities and amend and update that information as it becomes known.[1] It also requires that operators mark the presence of known abandoned underground facilities in the delineated area with an "A" in a circle.[2]

[1] Gov. Code Section4216.3(a)(4)
[2] 4216.3(a)(1)(C)

When an excavator finds an unmarked line, they must presume that it is active.[3] .The excavator's only recourse is to notify the one-call center that an operator failed to mark its line.[4] However, if the operator is unknown, there is no one to confirm whether the line is active, inactive, or inaccurately marked elsewhere. Current law does not outline the responsibilities of parties to identity the operator, status, or identity of an unmarked line.

During its September 2022 meeting, Board members expressed a continued desire to define "abandoned" subsurface installations and identified the need for, but problem with, finding the operator of a facility to confirm that it is abandoned.

In January 2023, the Board discussed the importance of distinguishing between "unmarked" and "abandoned" lines and heard a presentation from the Office of Energy Infrastructure Safety Data Team regarding possible options for the public to report unmarked lines for future knowledge sharing.

DISCUSSION

The last time the issue of "abandoned" lines was brought before the Board, the Board discussed the difference between an "abandoned" line as used in the Dig Safe Act and the unmarked lines excavators encounter in the field. This report expands on that distinction and explores the scope of the issues presented by unmarked lines through a fictional case study, based on an amalgamation of real cases staff have encountered.

Case Study: Marked vs. Unmarked (Claimed) vs. Unclaimed Lines

The scope of the issues presented by marked, unmarked, and unclaimed lines are explored below through an example of scenarios excavators encounter regarding abandoned lines and/or lines that are unmarked by operators.

First Scenario: Marked Abandoned Lines

Excavator delineates, calls 811, and all subsurface installations in the area of delineation are marked under Gov. Code Section 4216.3(a)(1)(A)(i). Although there are "abandoned" lines present, excavator begins digging with care and does not encounter any unmarked lines. The excavator knew before digging where all lines were because everything was fully located and marked in accordance with the Dig Safe Act.[5] Excavation occurs safely and without delay. There are no safety concerns.

Second Scenario: Unmarked Line (Claimed)

Excavator delineates, calls 811, and all operators on the ticket appear to respond appropriately under Gov. Code Section 4216.3(a)(1)(A). However, excavation reveals that not all subsurface

[3] Gov. Code Section 4216.4(a)(3)
[4] Gov. Code Section 4216.3(e)
[5] Gov. Code § 4216.3(a)(1)(A).

installations were marked: the excavator begins digging with care and encounters a subsurface installation that was not marked[6] and about which no information was provided.[7]

At this point — discovery of an unmarked line — the excavator must continue to treat the subsurface installation as active[8] and report the failure of an operator to mark its subsurface installation to the Regional Notification Center.[9] The Regional Notification Center retains that notification for three years.[10] Unlike (for example) the remark notification process,[11] the sub-paragraph of the Dig Safe Act that requires an excavator to report failure of an operator to mark a subsurface installation[12] does not explicitly require the excavator to cease work for two working days or for the Regional Notification Centers to send out any notification to operators.

Despite these statutory gaps, many lines are identified and claimed through one method or another. Excavators should have access to contact information for all operators,[13] so they can attempt to contact all operators directly. Regional Notification Centers may also send out an "exposed" ticket, alerting operators to the existence of an unmarked line and hopefully triggering a response from operators. Nothing in the Dig Safe Act explicitly states how operators should be notified of unmarked lines or what their response(s) should be. These gaps provide an opportunity for the Board to establish safety standards or regulations that clarify the steps all parties should take in response to the discovery of an unmarked line and how to identify the operator(s) of that line.

Regardless of the method of identifying the operator, once an operator has been identified and claimed responsibility for the unmarked line, the operator can then provide the excavator with relevant information about the line to enable the excavator to safely continue digging.

Third Scenario: Unmarked Line (Unclaimed)

If no entity claims operator responsibility for the line, the presence of unclaimed lines can continue to pose challenges to excavators and are often the result of utilities abandoning lines and not maintaining accurate property records. While best practice certainly suggests that operators should attempt to claim responsibility for all of their lines, in practice they have limited incentive to do so, especially if the identity of the line's operator cannot otherwise be proven.[14]

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[6] Gov. Code § 4216.3(a)(1)(A)(i).
[7] Gov. Code § 4216.3(a)(1)(A)(ii).
[8] Gov Code § 4216.4(a)(3).
[9] Gov. Code § 4216.3(e).
[10] Gov. Code § 4216.3(e).
[11] Gov. Code § 4216.3(b).
[12] Gov. Code § 4216.3(e).
[13] Gov. Code § 4216.2(b).
[14] For example, if the operator's identity cannot be proven and an operator does not claim responsibility for a line, then it is nearly impossible for the Board or any other governing body to hold the operator of a particular line responsible for their Dig Safe Act obligations, or for an excavator to successfully recoup costs associated with the operator's failure to meet their Dig Safe Act responsibilities.

In this third scenario, the excavator must determine how to proceed. They may need to consider whether to allocate time and resources to pothole the line, consult with the engineering team to redesign the project, or assess whether excavation can continue safely. Without an operator to provide information about the unmarked line, the excavator lacks clear direction on the appropriate course of action.

Safety Concerns: What Should Excavators Do and How to Prevent Future Unmarked Lines

After an unmarked line has been discovered by an excavator, the biggest ongoing safety challenges become what should excavators in the field do, and what can be done to prevent these exposed, unmarked lines from becoming unmarked lines in future excavation? In each of the scenarios above, the solution is different, depending on the situation.

In the first scenario, any potentially abandoned lines that may have been present in the excavation area did not present any safety concerns for excavators because they were fully located and marked as required by the Dig Safe Act, the excavator therefore knew not only the presence but also the location of all lines and was therefore able to safely excavate around those lines. There were no unmarked lines, thus, there is no safety concern regarding unmarked lines. It is the second and third scenarios in which present these safety concerns.

Unmarked Line:

When an excavator encounters an unmarked line in the field, they are required to report the failure of an operator to mark their subsurface installations to the Regional Notification Center.[15] However, that is the end of the legal process for identifying the operator of a line in this situation. Excavators are then faced with a no-win situation: can they safely continue to excavate? Under what circumstances is it safe to continue to excavate? What other steps should the various parties take to try to identify the operator of the unmarked line? When is it ok to give up on trying to find the operator of the unmarked line? In short, when encountering an unmarked line, what should an excavator do?

Complicating questions for what excavators should do is the fact that the Dig Safe Act does not place explicit requirements on operators for responding to notifications about unmarked lines. Questions for Board consideration include what actions should all of the various actors be required or encouraged to take when notified of an unmarked line? For example, should Regional Notification Centers be required to notify operators of an exposed, unmarked line? Should excavators be required to directly contact operators using the contact information available to them? Should operators be required to respond to an "exposed" notification? Under what circumstances should operators be required to respond, and what should that response look like?

Claimed Unmarked Line:

When an operator claims responsibility for an unmarked line, they are required to "amend,

[15] Gov. Code § 4216.3(e).

update, maintain, and preserve" records related to that unmarked line, now that the information about the line has become known to the operator.[16] If the operator complies with the Dig Safe Act and does, in fact, amend their records to include that previously unmarked line, then the operator's records become slightly more complete and the line will hopefully not be left unmarked again in a future excavation.

When an operator claims an unmarked line, the Board has multiple options already built into the Dig Safe Act to improve public safety related to that particular subsurface installation. The Board can audit or follow up with operators of claimed, unmarked lines to ensure that these records have, in fact, been updated.

Unclaimed Line:

When, however, no operator claims the unmarked line, then there is no operator updating their records and passing information about that line along to future excavators. In this scenario, the only entities who know of the existence of the unmarked line are the excavator and the Regional Notification Center, and perhaps any operators who learned of the exposed line.

While excavators have SUE quality level A[17] knowledge of the unclaimed line, they are poorly positioned to be able to share that information with future excavators. Regional Notification Centers, by contrast, are required by statute to receive and retain all notifications of unmarked lines, including ticket numbers associated with the unmarked line, regardless of whether the lines are claimed or unclaimed. Regional Notification Centers also have information regarding proposed excavations and their locations. The notification centers should, therefore, be able to identify when excavations are occurring in the area of a previously discovered unclaimed, unmarked line. However the Board chooses to address the issue of unmarked and unclaimed lines, Regional Notification Center cooperation is critical to the success of any proposed solution.

Recommendation

Staff recommends that the Board continue to develop safety standards for identifying the operator of unmarked lines and explore the possibility of regulations to clarify how operators should be notified of exposed lines and how those operators should respond to such a notification. The Board should also consider coordinating with outside parties, especially the Regional Notification Centers, to develop a way to preserve and pass on records regarding unclaimed lines to future excavators who may encounter those same lines.

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[16] Gov. Code § 4216.3(a)(4).

[17] The American Society of Civil Engineers (ASCE) developed standards of care for data quality regarding positional knowledge of Subsurface Utility Engineering (SUE) in ASCE Standard 38-02, commonly described as SUE-grade knowledge or SUE data quality. The highest quality standard of care/knowledge is Quality Level A: precise horizontal and vertical location of utilities obtained by the actual exposure and subsequent measurement of subsurface utilities, usually at a specific point.