California Underground Facilities Safe Excavation Board

September 13, 2022

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

Analysis of Electronic Positive Response Usage

PRESENTER

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Tony Marino, Executive Officer

SUMMARY

During the July 2022 meeting, the Board expressed an interest in understanding operator compliance with the electronic positive response requirement. Staff reviewed electronic positive response data of DigAlert, including data from operators who had been sent letters by staff notifying them that they were out of compliance with the requirement in May 2021. A significant proportion of operators continue to have extremely low compliance, including those who had received letters. Staff recommends pursuing a compliance audit as well as review of how the current electronic positive response codes are used.

STRATEGIC PLAN

2021 Annual Plan Objective: Foster Compliance with New and Existing Laws

2021 Annual Plan Objective: Continue Building a Foundation for Board Operations

BACKGROUND

As of January 1, 2021, all operators were required to use electronic positive response unless the operator has provided good cause and has been granted to a one-year extension by the Board.[1] Both Underground Service Alert of Northern California and Nevada (USA North) and DigAlert have adopted 28 electronic positive response codes that an operator may use in responding to a ticket. Code 999 is a system generated response that is used when a response was not provided by the operator by the legal start date and time. Staff considered operators as 100% non-compliant when all of their ticket responses were either Code 999 or Code 42.[2]

Staff received electronic positive response compliance data from DigAlert and USA North for the period of January through March 2021. In early May 2021, staff issued letters to nearly 400 private-sector operators notifying them that they were 100% non-compliant with the

[1] A list of operators granted extensions may be found here.

[2] Code 42 is a system-generated code that is triggered when an excavator cancels a ticket.

electronic positive response requirement.

DISCUSSION

Staff analyzed data collected from DigAlert and USA North to answer the following two broad questions:

1. What is the overall compliance level of operators with the electronic positive response requirement?
2. How many of the private utility operators who were sent letters advising them of noncompliance in 2021 are now compliant with electronic positive response?

Staff reviewed and analyzed data collected from USA North and DigAlert for the time periods of August 1, 2021 – December 31, 2021 (late 2021) and January 1, 2022 – June 30, 2022 (early 2022). This data was collected by staff via reports offered to Board staff within the DigAlert and USA North member portals. At the time of this report, staff has analyzed DigAlert data. Preliminary analysis of USA North data showed trends similar to those in the DigAlert data, but USA North data is not presented in this report.

Operator Compliance with the Electronic Response Requirement Varies

Staff reviewed the percentage compliance of all DigAlert operators during the late 2021 and early 2022 study periods. The results may be found in **Figures 1 and 2**.

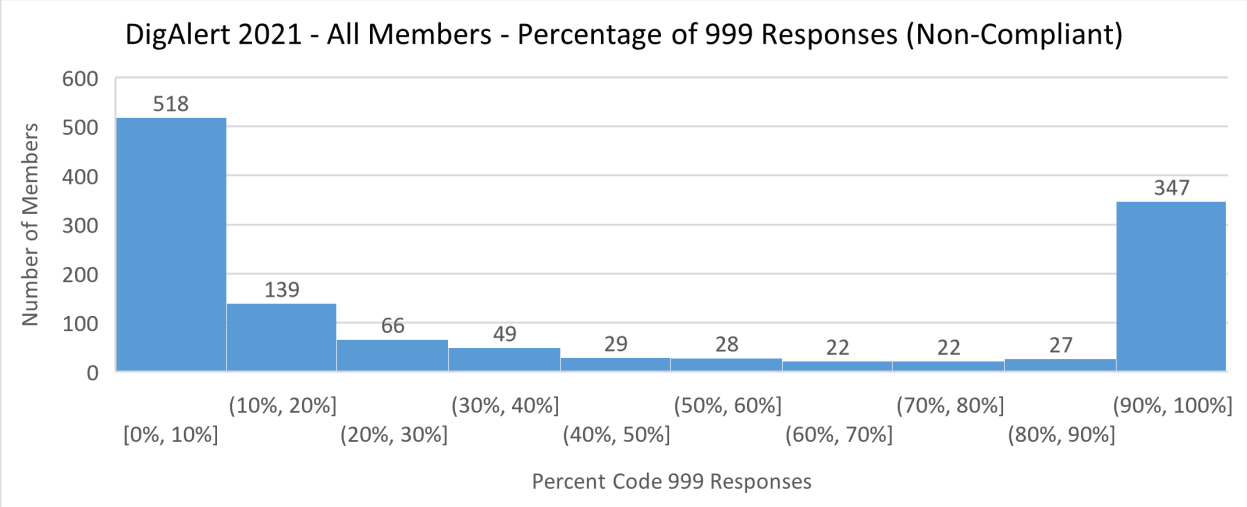

Figure 1: Histogram of DigAlert member compliance with electronic positive response in late 2021. Low percentages (left) indicate significant compliance, while high percentages (right) indicate low compliance. The number above each bar represents the number of operators within the percentage range.

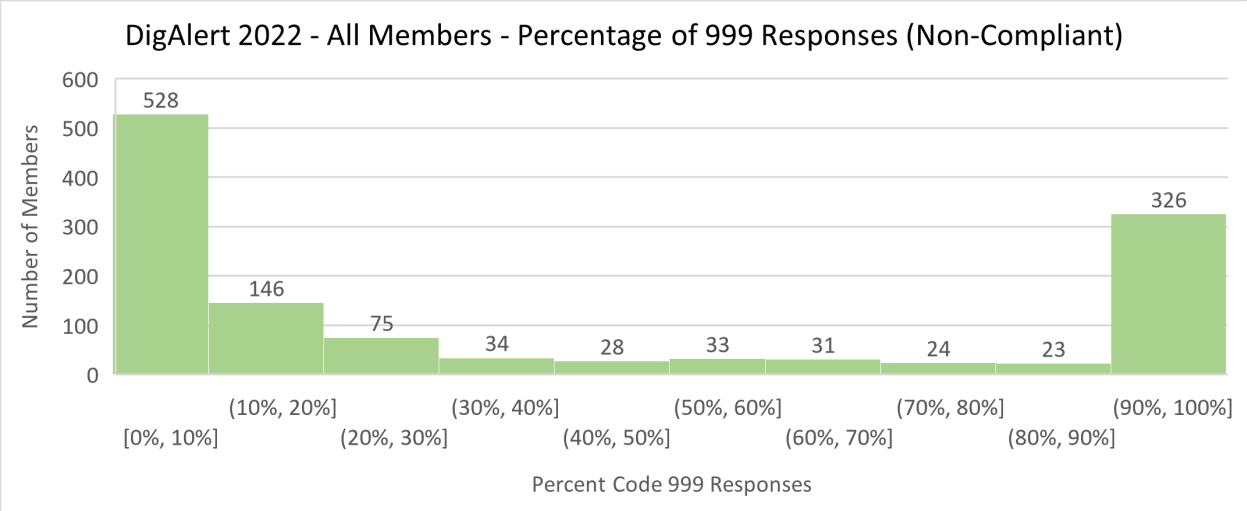

Figure 2: Histogram of DigAlert member compliance with electronic positive response in early 2022. Low percentages (left) indicate significant compliance, while high percentages (right) indicate low compliance. The number above each bar represents the number of operators within the percentage range.

The results indicate that

1) Most operators have either significant compliance (0-10% Code 999) or extremely low compliance (90-100% Code 999), and relatively few operators are in between.
2) Compliance did not significantly change from late 2021 to early 2022.

Furthermore, few operators made significant changes in compliance. **Figure 3** shows that the vast majority of members changed their percentage of Code 999 usage less than 10% either way.

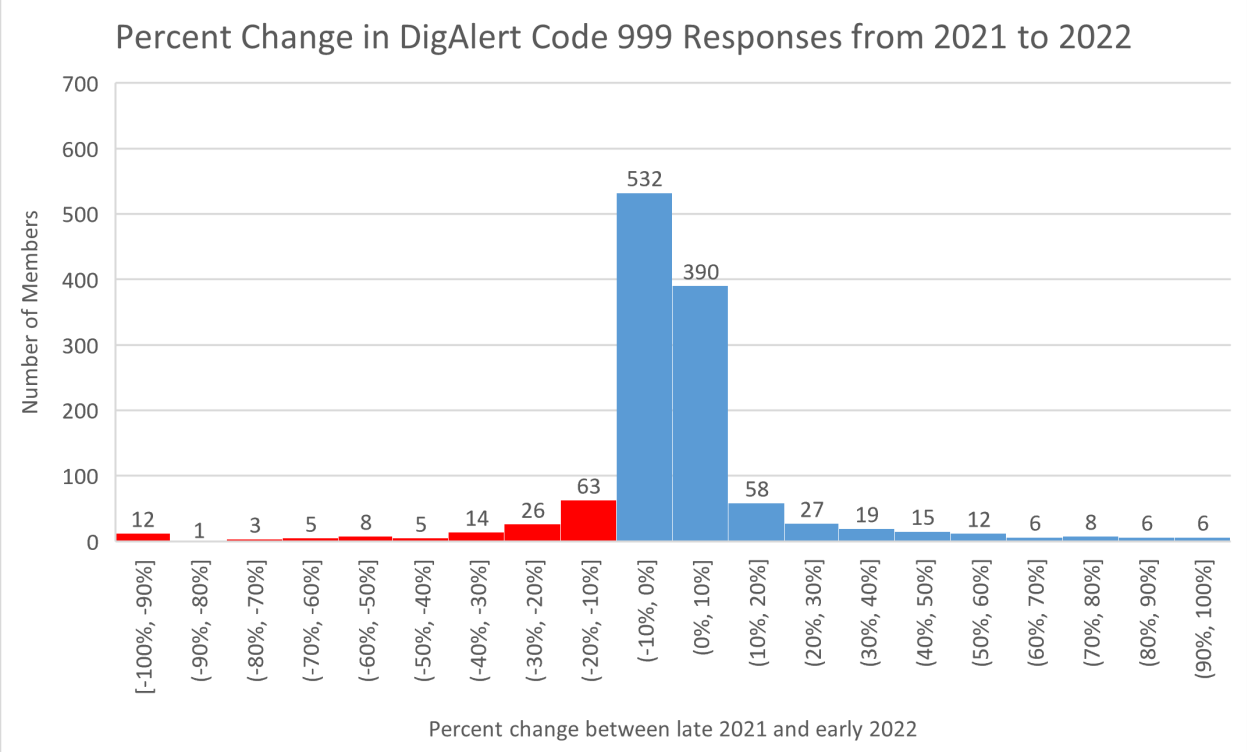

Figure 3: Percent change in electronic positive response code usage between late 2021 and early 2022. Members who became more compliant are on the left and members who became less compliant are on the right. The number above each bar represents the number of operators within the percentage range.

Compliance of Previously Noticed Operators

Staff also reviewed the subset of 145 DigAlert members who had been sent letters in May 2021 informing them that they were out of compliance with the electronic response requirement. Staff wanted to determine how those letters change behavior, and whether the operators remained 100% non-compliant after they received the letter. Staff found that 59 out of the 145 members (41%) remained 100% non-compliant. The overall picture of compliance of those operators may be seen in **Figures 4 and 5**.

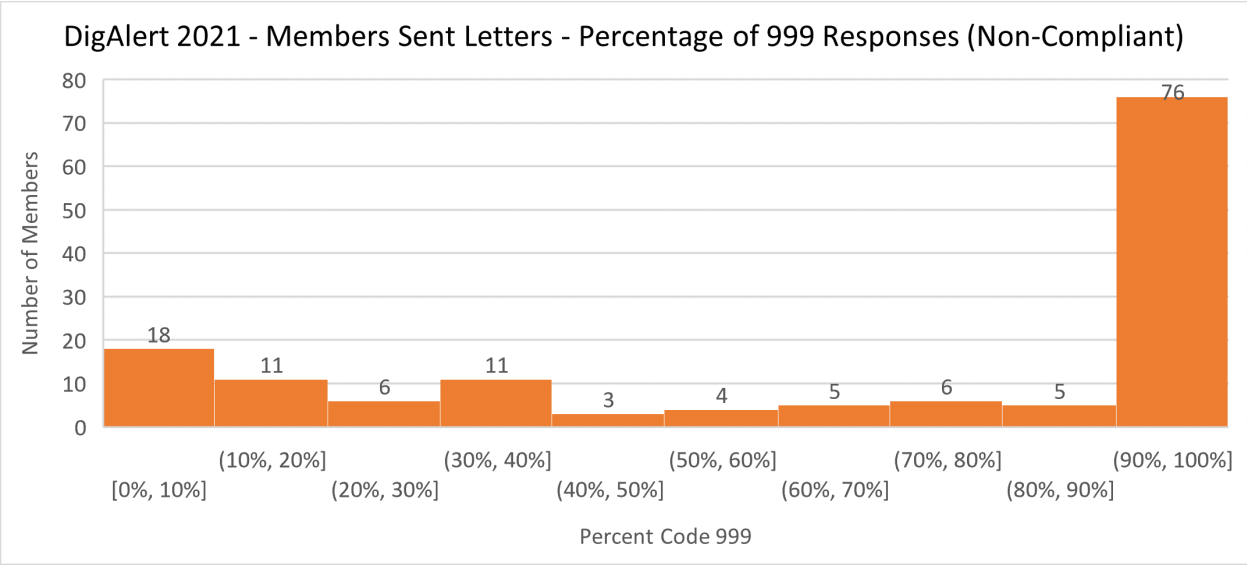

Figure 4: Histogram of DigAlert member in late 2021 compliance with electronic positive response who had been sent letters notifying them of non-compliance in May 2021. Low percentages (left) indicate significant compliance, while high percentages (right) indicate low compliance. The number above each bar represents the number of operators within the percentage range.

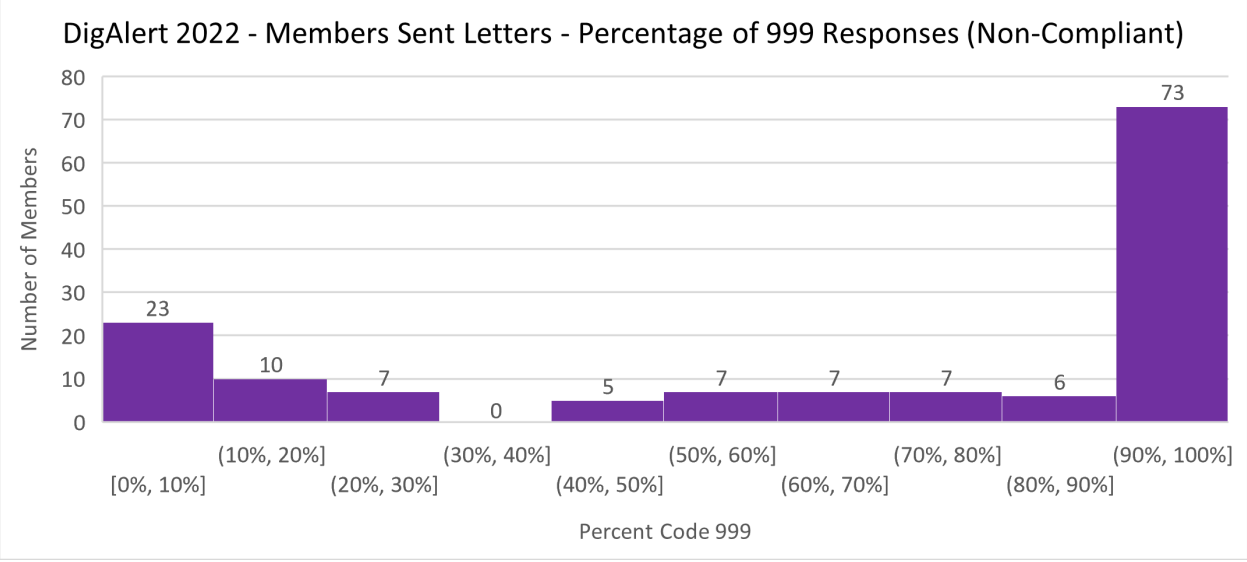

Figure 5: Histogram of DigAlert member in early 2022 compliance with electronic positive response who had been sent letters notifying them of non-compliance in May 2021. Low percentages (left) indicate significant compliance, while high percentages (right) indicate low compliance. The number above each bar represents the number of operators within the percentage range.

A graph like that in Figures 4 and 5 for early 2021 (January 1 through March 31) would have showed all 145 operators in the bar at the right—90-100% noncompliance. While some members became substantially compliant after they received letters, the majority continued

through mid-2022 to have extremely low compliance.

Smaller Operators are More Likely to Have Extremely Low Compliance

To determine if a correlation existed between the size of the company and its electronic positive response compliance level, staff created a scatter plot (**Figure 6**) to view the relationship.

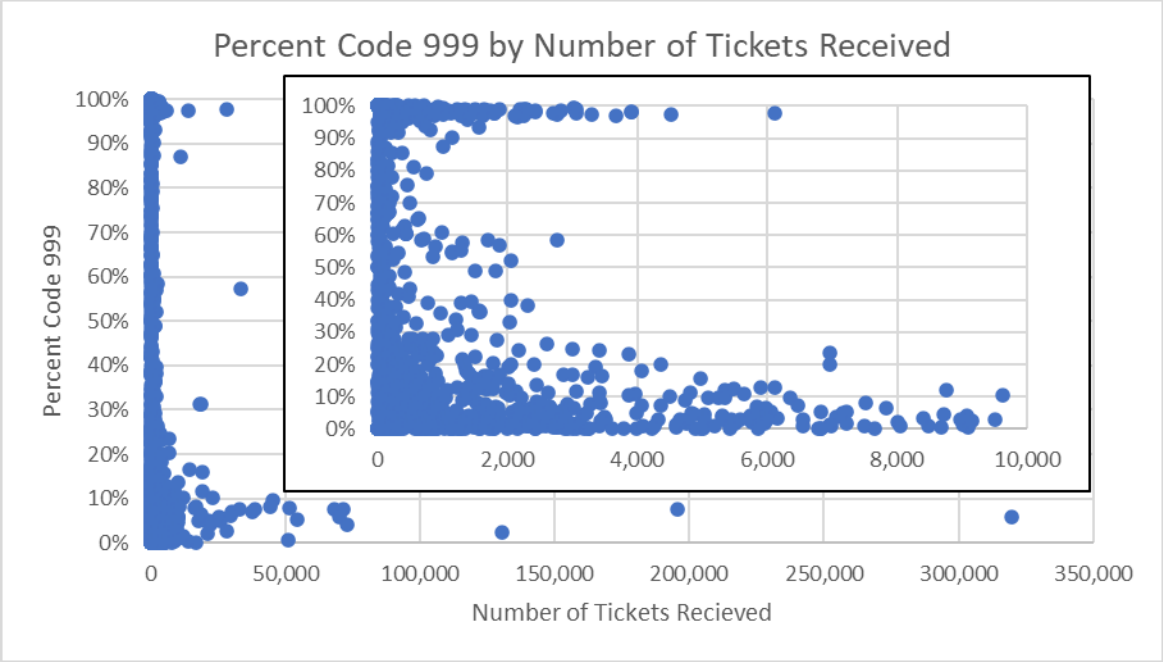

Figure 6: Scatter plot showing operator noncompliance level correlation with number of tickets received in early 2022. Inset plot shows only those members receiving less than 10,000 tickets. All points are shown—inset does not cover any points of larger plot.

The very largest of operators (greater than 25,000 tickets received in early 2022) all exhibit significant compliance of less than 10% usage of Code 999. While many smaller operators (receiving less than 4,000 tickets) show extremely low compliance, many also show significant compliance. It is therefore unlikely that small operators face compliance barriers that cannot be overcome.

Few Electronic Positive Response Codes are Widely Used

DigAlert data also shows how often different electronic positive response codes are used (**Figure 7**).

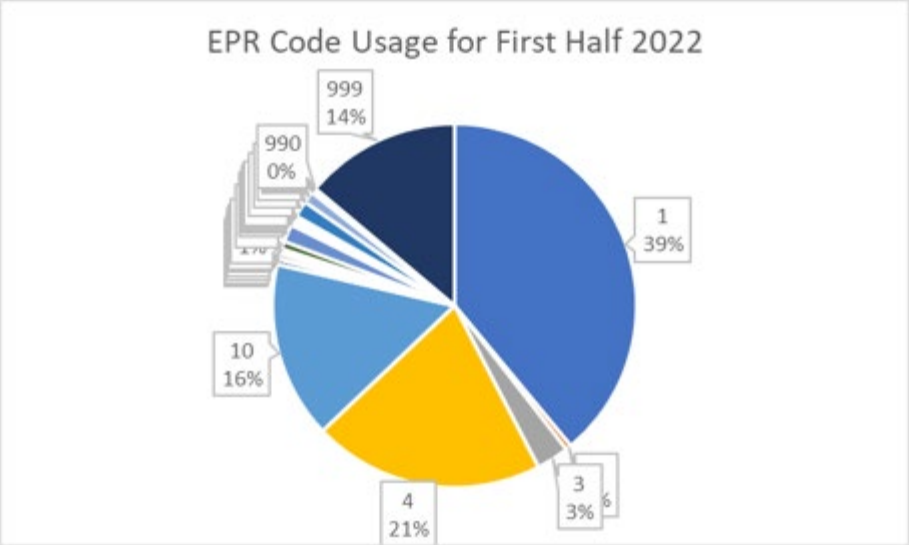

Figure 7: Proportion of electronic positive response codes used by DigAlert operators in early 2022.

Ninety percent of all electronic positive response responses used one of only four codes: "1: Clear – no conflict" (39%), "4: No markings requested" (21%), "10: Locate Area Marked" (16%), and "999: Member did not respond by required time" (14%). Given that the state has 31 allowable responses (**Attachment 1**) and nearly two years of experience with electronic positive response, it may be worth reviewing code usage statistics to understand how codes are used and how they may be improved.

RECOMMENDATION

Staff recommends a two-fold approach to further work: exploring audits as a means for electronic positive response enforcement and exploring the utility to excavators and operators of the different electronic positive response codes available to operators.

ATTACHMENT

1. California's Electronic Positive Response Codes

Attachment 1: California's Electronic Positive Response Codes

1	CLEAR - NO CONFLICT
2	CLEAR - NO CONFLICT BUT PRIVATELY OWNED UTILITY ON PROPERTY - CONTACT PRIVATE UTILITY OWNER FOR LOCATE
3	EXISTING MARKINGS ADEQUATE
4	NO MARKINGS REQUESTED
10	LOCATE AREA MARKED
11	LOCATE AREA MARKED BUT ABANDONED FACILITIES MAY BE IN THE AREA
12	LOCATE AREA MARKED UP TO PRIVATE OWNED UTILITY - CONTACT PRIVATE UTILITY OWNER FOR LOCATE
13	LOCATE AREA MARKED UP TO PRIVATE PROPERTY
14	PARTIALLY MARKED - MORE TIME IS NEEDED
15	PROVIDED FACILITY LOCATION INFORMATION TO EXCAVATOR (4216.3(a)(1)(A)(ii))
20	BAD ADDRESS/INCORRECT STREET/LOCATION INFO - RESEND TICKET REQUESTED
21	NO ACCESS TO LOCATE AREA - RESEND TICKET REQUESTED
22	NO DELINEATION - RESEND TICKET REQUESTED
23	DELINEATED AREA DOES NOT MATCH LOCATION REQUEST - RESEND TICKET REQUESTED
30	CONTACT FACILITY OWNER FOR FURTHER INFO
31	REQUIRES STAND BY AT TIME OF EXCAVATION - CONTACT FACILITY OWNER
32	VISIBLE OR EXPOSED FACILITY - CONTACT FACILITY OWNER IF CROSSING
33	HIGH PRIORITY LINE IN AREA - ON SITE MEETING REQUIRED
34	FIELD MEET REQUIRED - CONTACT FACILITY OWNER TO SCHEDULE
35	TRAFFIC CONTROL REQUIRED TO MARK FACILITIES
40	EXCAVATOR COMPLETED WORK PRIOR TO DUE DATE
41	EXCAVATOR NO SHOW FOR MEET
42	EXCAVATOR CANCELED REQUES
43	EXCAVATOR NOT DIGGING WITHIN 14 CALENDAR DAYS (PREPLANNING)
50	NEGOTIATED MARKING SCHEDULE
51	MUTUALLY AGREED TO A LATER START DATE AND TIME (4216.3(a)(1)(a))
52	UNABLE TO LOCATE USING STANDARD LOCATING TECHNIQUES
53	SCHEDULED MEET WITH EXCAVATOR AT REQUESTED DATE AND TIME CONFIRMED
80	EXTRAORDINARY CIRCUMSTANCES EXIST - NO LOCATE DUE TO WEATHER/EMERGENCY CONDITIONS
990	MEMBER HAS BEEN GRANTED AN EXTENSION FROM THE EPR REQUIREMENT BY THE BOARD AS DEFINED IN 4216 THROUGH 12/31/2021
999	MEMBER DID NOT RESPOND BY REQUIRED TIME (SYSTEM USE ONLY)