



Damage Prevention & Public Awareness



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Applicable Regulations & Practices

- Title 49 CFR Part 192

→ www.eCFR.gov

- California Governance Code (CGC) 4216
- Common Ground Alliance (CGA) Best Practices
- API RP 1162, 1st edition, December 2003





§192.614(a) Damage Prevention Program

- Each operator needs to have and follow a written program to prevent damage from excavation
- Excavating includes excavation, blasting, boring, tunneling, backfilling, the removal of aboveground structures by either explosive or mechanical means, and other earthmoving





§192.614(b)

- An operator's pipeline system must be covered by a qualified one call system where there is one in place
- Participation in a one call system can be used to comply with the requirements of §192.614(c)





§192.614(c)

- List of items that the program must cover
- Receive and respond to mark and locate requests
- Inspect pipelines that the operator has reason to believe could be damaged by excavation
- Participation in a one call program is active, not passive and the written plan must cover the operator's interactions with the one-call program





§192.614(d)

- 192.614 does not apply to:
 - Offshore pipelines
 - Pipelines to which access is physically controlled by the operator





CGC 4216.1

- *Every operator of a subsurface installation... shall become a member of, participate in, and share in the costs of, a regional notification center. Operators of subsurface installations who are members of, participate in, and share in, the costs of a regional notification center... are in compliance with this section and Section 4216.9.*





CGC 4216.2(a)

- Make requests to a one-call center 2-14 days prior to the start of excavation
- Delineate excavation area with white paint or other methods if white paint is impractical
- Special requirements for communication for excavation near “high priority subsurface installation”





High Priority Subsurface Installations

- Natural gas facilities over 60 psig
- Petroleum pipelines
- Pressurized sewage pipelines
- High-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60kv
- Hazardous materials pipelines that are potentially hazardous to workers or the public if damaged.





CGC 4216.2(b)

- For excavation within 10 ft of a high priority subsurface installation the operator shall:
 - Notify the excavator of the existence of the high priority subsurface installation prior to the excavation start date and time
 - Conduct an onsite meeting with the excavator





CGC 4216.2(c)

- Tickets are good for 28 days
- Tickets can be extended if the excavator and all relevant operators agree
- Tickets can be renewed upon excavator request to the one-call center





CGC 4216.2(d)

- One call centers shall maintain a record of all notifications by excavators and operators to the regional notification center for a period of not less than three years.
- Records are available to any member operator or the excavator upon request





CGC 4216.2(e)

- Delineation is practical when the following conditions exist:
 - White paint markings do not mislead drivers
 - Marking could not be misinterpreted as traffic or pedestrian control
 - Excavators can determine the exact location of an excavation prior to operator mark and locates
 - No duplicate delineations





CGC 4216.2(f)

- If delineation is impractical, the excavator shall contact the one-call center to inform the operators that alternative methods will be used to designate excavation area
- Alternative methods must be clear and accurate





CGC 4216.3(a)

- Upon receiving a mark and locate request, respond within 2 working days
- Use qualified persons to mark and locate
- Persons performing mark and locate should have access to necessary equipment and records to perform their tasks





CGC 4216.3(b)

- Operators should make field marks in conformance with the uniform color code of the American Public Works Association





CGC 4216.3(c)

- If marks are no longer visible during excavation, the excavator shall request remarks from the one-call center
- Operators have 2 working days to re-mark upon request





CGC 4216.3(d)

- The excavator shall notify the one call center of operator failure to comply with CGC 4216
- Records of these notifications shall be maintained by the one call center for at least 3 years





CGC 4216.4(a)

- Excavators shall not use heavy machinery near facilities until the excavator has determined the exact location of the facilities
- Exceptions for breaking asphalt/concrete that do not contain facilities
- Excavators can use heavy machinery where there is a documented agreement between the excavator and any affected operators





CGC 4216.4(b)

- If the excavator cannot determine the exact location of a facility by hand excavating, the excavator shall request more information from the operator
- The operator will provide what relevant information is available to them





4216.4(c)

- Excavators that cause or find damage to operator facilities shall notify the operator immediately
- If the operator cannot be contacted, the excavator shall call 911





CGC 4216.5

- CGC 4216 applies to state and local agencies that own or operate subsurface installations
- Local agencies required to perform mark and locate services per 4216.3, may charge a fee sufficient to cover the performance of those services





CGA Best Practices

- Best practices cover:
 - Planning and performing excavations
 - Marking and Locating
 - The one call center's responsibilities
 - Mapping
 - Public Education
 - Reporting
 - Data Analysis





CGA Best Practices 4.1

- Facility locators use available records at all times
- Records should indicate:
 - Approximate location and quantity of facilities
 - Access points for buried facilities





4.14 Communication Between Parties

- Include processes for communication with excavators, operators, and the one call center in the written damage prevention plan
- Complex projects may require on-site meetings and written agreements between parties





5.4 Pre-excavation Meeting

- Excavators should request meetings with locators on-site prior to marking whenever practical
- These meetings are more important near critical or high-priority facilities or for complex projects





4.9 & 5.8 Positive Response

- Positive responses includes but are not limited to: markings or documentation left at the job site, callback, fax, or automated response system.
- Excavators should receive positive responses from all operators notified by the one call center
- Operators provide positive response to excavators for all received requests





5.9 Facility Owner/Operator Failure to Respond

- Occurs when an operator fails to mark within the required timeframe or notifies the excavator that they cannot mark and a mutually agreed upon date cannot be arrived at
- Excavator re-calls the one call center
- Excavator can start work 2 days after the ticket with due caution





5.11 Documentation of Marks

- Dated pictures, videos, or sketches with distance from markings to fixed objects
- Assists in litigation in the event of damage due to mismarks, failure to mark, or improper excavation practices





4.18 Quality Assurance

- Operators should have a QA program that monitors their marking and locating
- There are 13 recommended components for a QA program in the best practice
- Generally, practices include verifying all mark and locate procedures are being followed, all requests are responded to promptly, marks are being made accurately, all equipment used is properly maintained and calibrated and, everything is properly documented





§192.616(a) Public Awareness

- Operators must have and follow a written public awareness plan
- The plan must also follow the guidance in API RP 1162 1st edition, December 2003





§192.616(b) Public Awareness

(b) The operator's program must follow the general program recommendations of API RP 1162 and assess the unique attributes and characteristics of the operator's pipeline and facilities.

- Operators should take care when using “stock” public awareness plans





§192.616(c) Public Awareness

- Recommendations in API RP 1162 must be followed unless the recommended practice is “not practicable and not necessary for safety.”
- Operator’s public awareness plans must justify any decisions to not comply with any recommendations in API RP 1162





§192.616(d) Public Awareness

- The program must educate the public, appropriate government organizations, and excavators on:
 - The use of a one call system
 - Possible hazards associated with gas leaks
 - How to identify, respond to, and report a leak





§192.616(e) Public Awareness

(e) The program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.





§192.616(f) Public Awareness

(f) The program and the media used must be as comprehensive as necessary to reach all areas in which the operator transports gas.

- The program should reach stakeholders near operator facilities even if those stakeholders do not otherwise interact with the operator





§192.616(g) Public Awareness

(g) The program must be conducted in English and in other languages commonly understood by a significant number and concentration of the non-English speaking population in the operator's area.

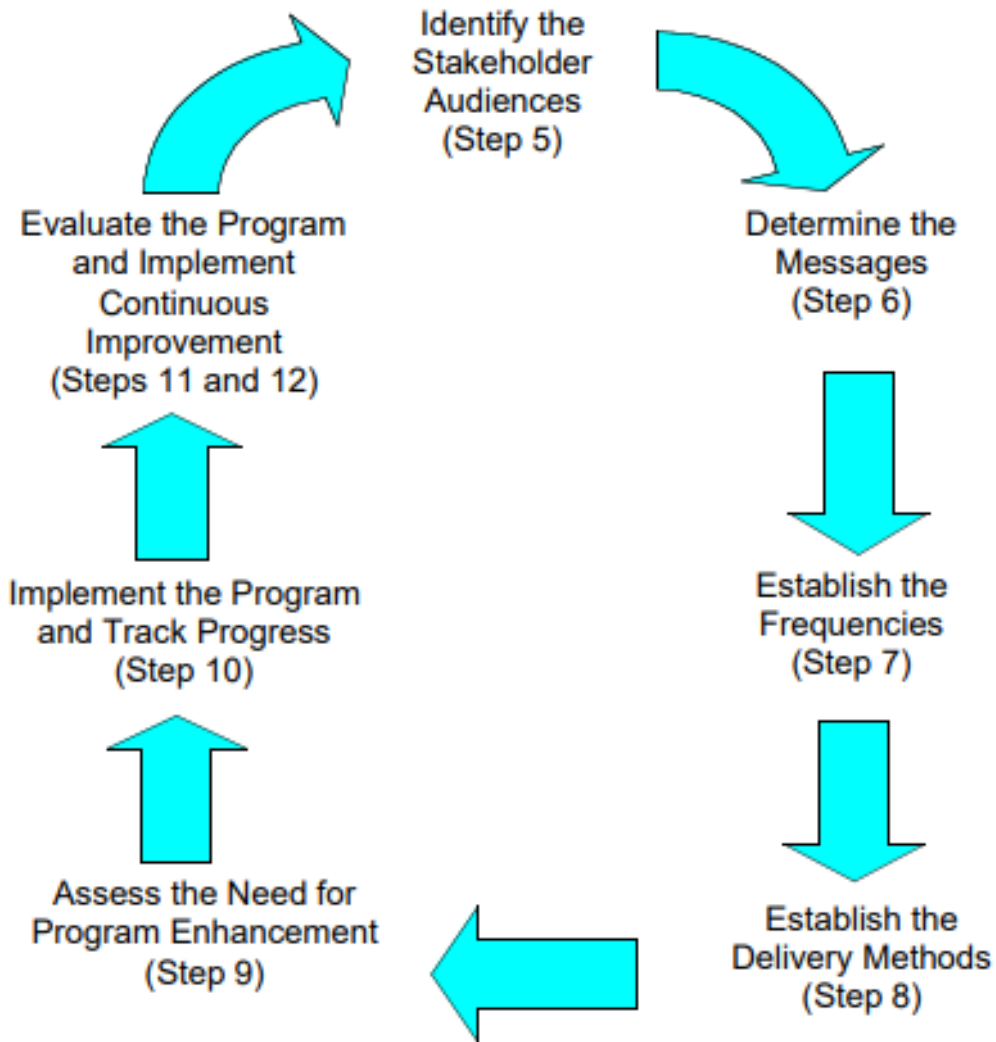




API RP 1162, Section 3

- 4 stakeholder groups
 - Affected public
 - Customers, other residents, and places of congregation
 - Emergency officials
 - Public officials
 - Excavators
 - May be private or government excavators







Measuring Program Effectiveness





Section 8.2: Elements of Evaluation Plan

- Chosen metrics for the program evaluation should evaluate the following:
 - Is the program effective?
 - Are processes being followed?





Section 8.4: Measuring Program Effectiveness

- Is the program reaching all stakeholder groups?
- Do audiences understand the messaging?
- Are stakeholders responding appropriately in accordance with the messaging?
- Is the program “impacting bottom-line results”?





Measure 1 - Outreach

- Estimate percentage of each stakeholder group reached
- Track number of calls to operator personnel and views to the public awareness portion of the operator's website
- Track mailed in feedback
- Track participation in emergency response exercises





Measure 2 – Understandability of the Content of the Message

- Assess percentage of each stakeholder group that retained messaging
- Pre-test materials with focus groups
- Surveys





Measure 3 – Desired Behaviors by the Intended Stakeholder Audience

- Survey from measure 2 should also have questions relevant to this measure
- Assess excavator practices
- Assess first responder behaviors





Measure 4 – Achieving Bottom-Line Results

- Analyze damage prevention effectiveness
- Track near misses, incidents, other excavation damage events, and consequences caused by third-party excavators
- Evaluate trends over long time periods





CGA Best Practices, Section 8

- 8.5 Target Mailings
- 8.6 Paid Advertising
- 8.7 Free Media
- 8.8 Giveaways
- 8.9 Establishing Strategic Relationships
- 8.10 Measuring Public Education Success





Other Opportunities for Measuring Program Effectiveness

- Captive audiences
- Existing interactions with stakeholders





Questions?





Thank you!
For Additional Information:
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