Public Awareness Programs for Pipeline Operators

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Introduction

Pipeline operators' public awareness programs help raise awareness of pipelines and associated facilities that exist in or near communities and provide information to stakeholder groups to help keep communities safe.

This recommended practice provides guidance for operators of regulated transmission, distribution, gathering pipeline, and underground storage systems to develop and manage public awareness programs tailored to meet the needs of communities. This recommended practice is supplemented by a guidance website hosted by API that provides additional information for operators that supplements the guidance in this recommended practice.

This document is intended to help operators determine program objectives that are appropriate for their company's pipeline system and to create processes to identify their stakeholder audiences, determine whether and when supplemental efforts are needed to support ongoing baseline program activities, and evaluate the effectiveness of their programs and identify program changes or adjustments, as needed.

Plan–Do–Check–Act

This recommended practice is organized around a Plan–Do–Check–Act (PDCA) program implementation cycle.

At its core, the PDCA cycle is a four-step model for carrying out continuous assessment and improvement and can be applied to a public awareness program as well as to individual elements and processes within the program. The PDCA cycle is useful when starting a new public awareness program; when developing a new or improved design of a process, product, or service; or when defining a repetitive work process.

Figure 1 provides an overview of the PDCA cycle.

The components of the PDCA cycle are as follows.

Plan: This step entails establishing the objectives and processes necessary to deliver results in accordance with the organization's policies and the expected goals. By establishing output expectations, the completeness and accuracy of the process is also a part of the targeted improvement.

Relevant sections within this recommended practice that focus on "Plan" include the following:

- Program Establishment (see Section 4);
- Messages (see Section 5).

Do: This step is the execution of the plan designed in the previous step.

Relevant sections within this recommended practice that focus on "Do" include the following:

- Delivery Frequencies and Methods (see Section 6);
- Program Implementation and Supplements (see Section 7).

Check: This step entails the review of the results compared with established objectives.

Compare those results to the expected goals to ascertain any differences, looking for deviation in implementation from the plan.

Relevant sections within this recommended practice that focus on "Check" include the following:

— Public Awareness Program Evaluation (see Section 8).

Act: This step is where a pipeline operator takes actions to improve process performance or determines where to apply changes that will include improvement of the process or program effectiveness.

Relevant sections within this recommended practice that focus on "Act" include the following:

Any/all sections of an operator's program where changes are made based on results of a prior annual implementation review or program effectiveness evaluation.



Plan = strategic planning activity Do = implementation activity Check = evaluation and quality assurance/quality Act = program updates and adjustment activity control activity

Key

Figure 1—Plan–Do–Check–Act (PDCA) Cycle

Reflecting the cyclical nature of PDCA and the dynamic/evolutionary nature of the public awareness program, the entire process begins again from the start. Each cycle through PDCA produces opportunities for improvement. The application of PDCA logic to individual elements within the process can provide similar insights and opportunities for improvement within that element.

Public Awareness Programs for Pipeline Operators

1 Scope

This document addresses the development, implementation, evaluation, and documentation of pipeline public awareness programs associated with distribution, regulated transmission, gathering pipeline, and underground storage systems in the United States that are required under federal or state pipeline safety regulations to have a public awareness program.

NOTE The U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) Advisory Bulletin "Pipeline Safety: Clarification of Terms Relating to Pipeline Operational Status" (PHMSA-2016-0075) describes which regulated pipeline systems may be required to have a public awareness program.

A public awareness program is not required for abandoned pipeline systems. An operator can choose to use this recommended practice for nonregulated transmission, local distribution, and gathering pipeline systems.

Communications occurring prior to or during new pipeline construction are not covered by this recommended practice. Communications related to offshore operations and abnormal operations and during or related to emergencies are not covered by this recommended practice.

This recommended practice provides minimum requirements and offers guidance to operators to develop public awareness programs that take into account the differences and similarities in pipeline types, release characteristics, stakeholder audiences, operator activities, and other factors that can influence the program's development and implementation.

This recommended practice provides operators with public awareness program elements and illustrates the process for establishing, implementing, measuring, and adjusting a program, in alignment with the Plan– Do–Check–Act (PDCA) process for managing programs. This recommended practice addresses certain operational changes requiring additional communication based on the introduction of new hazards.

NOTE At the time of this publication, certain nonregulated Class I and Class II rural gas gathering lines in the United States, as defined in 49 *CFR* Part 192, are not required by federal regulation to have a public awareness program. Annex F outlines the provisions of this recommended practice that may apply to operators following API 1182, *Construction, Operation, and Maintenance of Large Diameter Rural Gas Gathering Lines.*

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

U.S. DOT Title 49¹, *CFR* Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*

U.S. DOT Title 49, CFR Part 195, Transportation of Hazardous Liquids by Pipeline

3 Terms, Definitions, Acronyms, and Abbreviations

3.1 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

811

In the United States, a federally designated "Call Before You Dig" telephone number.

¹ U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, www.transportation.gov.

3.1.2

analysis

To examine data to determine their component parts to better understand those data.

3.1.3

assessment

The action or an instance of making a judgment about something.

3.1.4

baseline public awareness program

Minimum requirements of a pipeline operator's public awareness program.

3.1.5

behavioral intent

The likelihood that a person will engage in a given behavior.

3.1.6

census

An attempt to gather information from every member of the population.

3.1.7

confidence level

A determination indicating the probability a survey outcome will fall within a specified range of values if conducted again among a similar population.

3.1.8

damage

Anything that results in the need to repair or replace a pipeline due to a weakening, or the partial or complete destruction, of the pipeline or facility, including, but not limited to, the pipe, appurtenances to the pipe, protective coatings, support, cathodic protection, or protective coating.

3.1.9

encroachment

Unauthorized activity onto or within the operator's right of way (ROW).

3.1.10 high consequence area HCA

An area where pipeline releases could have greater consequences to health, safety, or the environment as defined in applicable pipeline safety regulations.

NOTE See 49 CFR § 192.903 and 49 CFR § 195.450.

3.1.11

liaison

liaise

Communication and coordination to facilitate mutual understanding and cooperation among people or organizations.

3.1.12

margin of error

The possible range difference between the responses of the true, or actual, population and the sample population, or those surveyed.

3.1.13

one-call center

A qualified entity that administers a system through which a person can notify its member operators of lines or facilities of proposed excavations.

3.1.14

operator

Entity that operates a regulated pipeline or facility.

3.1.15

pipeline

pipeline system

Please refer to 49 *CFR* 192.3 for natural and other gas transmission, gathering, and distribution pipeline systems and 195.2 for hazardous liquid and carbon dioxide pipeline systems, as well as related statutes and interpretations at both the state and the federal levels.

3.1.16

population

The entire pool from which a statistical sample is drawn.

3.1.17

qualitative research

A research method used to collect non-numerical data/information from which meaning might be interpreted and analyzed.

3.1.18

quantitative research

A research method used to collect numerical data/information such that the results and findings may be expressed and analyzed statistically and mathematically.

3.1.19

radius of exposure

Distance from possible point of release to where H₂S concentration in air will dilute to below 100 PPM.

3.1.20

random sample

A subset of a statistical population in which each member of the subset has an equal probability of being chosen.

3.1.21

response rate

The number of responses to a survey divided by the survey sample size.

3.1.22

right of way

ROW

Defined land or water on which an operator has the rights to construct, operate, and/or maintain one or more pipelines.

NOTE A ROW may be owned outright by the operator, or an easement may be acquired for its specific use.

3.1.23

sample

A part of a population selected to represent a larger population of interest.