Recommended Practice for Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response

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0 Introduction

This Recommended Practice (RP) has been developed for onshore hazardous liquid pipeline operators (hereinafter "the operator"), with the intent to align industry, government, and emergency response organizations' expectations, practices, and competencies and to promote safe, timely, and effective response to incidents. It defines the fundamental emergency response requirements for those claiming conformity to the requirements of this document.

While this document may include some elements of other management systems (such as safety, environmental, financial, or risk management), it does not include all requirements specific to those systems. This document may be used either in conjunction with or independent of other industry-specified documents.

For an operator to function effectively, it must determine and manage numerous linked activities. An activity that transforms inputs into outputs is one way to define a process. This document promotes a process approach for the application of specific clauses when developing, implementing, and improving the effectiveness of pipeline emergency response programs. This approach provides for uninterrupted control over the stated requirements, as well as facilitating the overlap of processes, including the following:

a) demonstrating management commitment,

b) structuring risk management decisions,

c) increasing confidence in risk controls,

d) providing a platform for sharing knowledge and lessons learned, and

e) promoting a safety-oriented culture.

Process activities include determination of needs throughout pipeline operations, provision of resources, identification of the proper sequence or order of a series of activities, monitoring and measuring the effectiveness of the activities performed, and applying changes or corrections to those activities as needed.

Goal of the Document

The goal of this document is to provide operators with an enhanced framework to enable continual improvement of pipeline emergency response. The framework builds on an operator's existing pipeline-related activities and draws upon industry experiences, lessons learned, and existing standards. The framework is comprehensive in its intent to define the managerial elements for safe, timely, and effective emergency response.

NOTE "Pipeline" is defined in Terms and Definitions (see 3.1.16) to address, more broadly, pipeline systems.

Figure 1 illustrates this RP's four strategic areas of focus (communication, training, exercise, and learning) and the associated goals of each.

API 1174 Emphasis

This RP emphasizes:

— increased proactivity through training and planned exercises,

— improved communications and clarified response management responsibilities throughout the operator's organization (including contractor support), and

— provision of safe, timely, and effective emergency response by regularly evaluating operations to identify and address risks



Figure 0.1—Strategies and Goals

These factors make response management activities more effective, comprehensive, and integrated.

Standard Management System Principles

This RP is based on the following standard management system principles.

— Commitment, leadership, and oversight from top management are essential to the overall success of an emergency response process. Management commitment ensures that the elements set forth in this RP are established with clear accountability for implementation and with a clear connection from objectives to day-to-day activities.

— A safety-oriented culture is essential to enable the effective implementation and continual improvement of emergency response processes and procedures.

— Management of risk is an integral part of the design, construction, maintenance, and operation of a pipeline.

— Pipelines are designed, constructed, operated, and maintained in a manner that complies with federal, state, and local regulations and conforms to applicable industry codes and consensus standards with the goal of reducing risk, preventing incidents, and minimizing the occurrence of abnormal operations.

— Application of a comprehensive and systematic approach to pipeline emergency response creates an organization that can mitigate incidents and promotes a learning environment for continual improvement.

— Protection of life and property and minimization of adverse environmental consequences are essential.

— Periodic audits of the implemented elements of the document are essential to ensure effective execution of procedures, to identify improvement opportunities, and to improve performance.

— Support for and encouragement of employees to report risks, hazards, and safety incidents by providing a feedback system enables the operator to learn from experience.

The operator may consider using the Plan–Do–Check–Act (PDCA) cycle (see Annex A).

Recommended Practice for Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response

1 Scope

This Recommended Practice (RP) provides to operators of onshore hazardous liquid pipelines a framework that promotes the continual improvement of emergency planning and response processes, including identification and mitigation of associated risks and implementation of changes from lessons learned. This RP assists the operator in preparing for a safe, timely, and effective response to a pipeline emergency.

This RP applies to assets under the jurisdiction of the U.S. Department of Transportation (DOT), specifically U.S. Title 49 *Code of Federal Regulations (CFR)* Parts 194 and 195. Operators of non-DOT jurisdictional pipelines or tank assets could make voluntary use of this document.

This RP is not intended to apply to the following:

a) post-response environmental remediation,

b) exploration and production operations,

c) offshore hazardous liquid pipeline operations,

d) facility piping, or

e) natural gas transmission and distribution pipeline operations.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document applies (including any addenda/errata).

API Recommended Practice 1162, *Public Awareness Programs for Pipeline Operators*

FEMA *National Incident Management System Document* (NIMS Document) [1]

ISO 9000:2005 [2], *Quality management systems—Fundamentals and vocabulary*

USCG/U.S. EPA *Incident Management Handbooks* [3]

USCG Title 33 *CFR* Part 154, *Facilities Transferring Oil or Hazardous Material in Bulk*

USCG Title 33 *CFR* Part 155, *Oil or Hazardous Material Pollution Prevention Regulations for Vessels*

U.S. DOT Title 49 *CFR* Part 194 [4], *Response Plans for Onshore Oil Pipelines*

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

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1 FEMA, a division of U.S. Department of Homeland Security, Washington, DC 20528, www.fema.gov
2 International Organization for Standardization, 1, ch. de la Voie-Creuse, Case postale 56, CH-1211, Geneva 20, Switzerland, www.iso.org.
3 U.S. Coast Guard Marine Safety Center (part of DOT), 2100 Second Street, S.W., Washington, DC 20593, www.uscg.mil.
4 U.S. Department of Transportation,1200 New Jersey Ave, SE, Washington, DC 20590, www.dot.gov.