

Recommended Practices for the Closure of Underground Storage Tank and Shop-Fabricated Aboveground Storage Tank Systems

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- PEI/RP1500, *Recommended Practices for the Design, Installation, Operation and Maintenance of Compressed Natural Gas Vehicle Fueling Facilities*
- PEI/RP1600, *Recommended Practices for the Design, Installation, Operation and Maintenance of Liquefied Natural Gas Vehicle Fueling Facilities* (Scheduled release in 2019.)

FOREWORD

These *Recommended Practices for the Closure of Underground Storage Tank and Shop-Fabricated Aboveground Storage Tank Systems* have been prepared as an industry service by the Petroleum Equipment Institute. The text represents the consensus views of the PEI Tank Closure Committee, comprised of the following members:

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1. INTRODUCTION

1.1 Origin. The Petroleum Equipment Institute (PEI) has produced this document as an industry service. It has been prepared in response to requests for a single authoritative source of information from underground storage tank (UST) and aboveground storage tank (AST) system owners/operators, tank and pump contractors, consultants, engineers, the safety industry, regulators and other individuals.

These recommended practices represent a synthesis of industry procedures relating to the closure of USTs and shop-fabricated ASTs. These practices are the consensus recommendations of the PEI Tank Closure Committee. The Committee is composed of representatives from equipment suppliers/manufacturers; tank contractor companies specializing in the design, installation and closure of tank systems; and environmental personnel from industries that operate storage tank systems. In addition, the Committee has had the benefit of comments submitted by parties interested in tank closure.

In instances when there were differences or omissions in material available from existing sources, the PEI Tank Closure Committee has included its own consensus recommendations based on the practical experience of Committee members. In some respects, these recommended practices may be more stringent than the requirements imposed by state and/or local regulations. However, these recommended practices do not attempt to cover all of the subjects addressed in the regulations for tank closure of USTs and shop-fabricated ASTs.

1.2 Background. The U.S. Environmental Protection Agency (EPA) issued its *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)*. The standards appear in Part 280 of Volume 40 of the Code of Federal Regulations. Individual states may have more stringent requirements than outlined by the EPA. Therefore, the requirements of the authority having jurisdiction (AHJ) should be reviewed before commencing work. The AHJ is an organization, office or individual responsible for enforcing the requirements of a code or standard or for approving equipment, materials, an installation or a procedure.

The EPA has not drafted regulations for ASTs. However, AST management regulations have been developed at some state and local levels of government. Since the AHJ may have additional requirements, the appropriate gov-

ernment agencies should be consulted before taking any action suggested by these recommended practices.

The lack of uniform closure standards has resulted in diverse closure practices. Evolving factors, such as the emphasis on environmental protection, state and federal regulations, and safety considerations, also have necessitated that the closure of shop-fabricated ASTs and USTs be consistent and carefully planned.

1.3 Purpose. The purpose of this document is to provide consistent recommended practices for the safe closure of UST and shop-fabricated AST systems used to store petroleum products. It provides a summary of general guidelines for the decommissioning, removal, closure in place, storage, transportation and off-site disposal of USTs and shop-fabricated ASTs that have contained petroleum products.

The principal objectives of this recommended practice are to:

- promote consistent, safe universal closure practices;
- protect the environment;
- prevent future releases from UST and shop-fabricated AST systems no longer in service;
- identify and contain existing contamination discovered during closure.

1.4 Scope. These recommended practices apply to facilities that are equipped with regulated or non-regulated USTs and shop-fabricated ASTs, associated piping, diking and spill containment, and equipment intended to operate a system that contains petroleum products.

These recommended practices do not apply to:

- pressure vessels;
- field-erected tanks.

This document is not intended to endorse or recommend particular materials, equipment, suppliers or contractors.

The inclusion of procedures for the closure of USTs and shop-fabricated ASTs is not meant to imply that such procedures supersede any mandated regulatory requirements. This document also is not meant to provide interpretation of regulatory or legislative requirements related to closure of USTs and shop-fabricated ASTs.

1.5 Sources. The practices outlined in this document constitute a compilation of requirements and recommendations published by various organizations. References are listed in Appendix A.

1.6 Use of Other PEI Recommended Practices. Refer to the following PEI documents for additional recommended practices and procedures related to UST and AST systems:

- PEI/RP 100, *Recommended Practices for Installation of Underground Liquid Storage Systems*;
- PEI/RP 200, *Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling*;
- PEI/RP 300, *Recommended Practices for Installation and Testing of Vapor Recovery Systems at Vehicle Fueling Sites*.

1.7 Regulations and Codes. USTs, shop-fabricated ASTs and the ancillary equipment discussed in these recommended practices may be regulated by AHJs, including federal, state, local, county, township and/or city authorities. While the general requirements of the regulations are similar, specific requirements may vary from jurisdiction to jurisdiction. The PEI Tank Closure Committee has not attempted to describe or interpret specific regulations in this document. Where there are differences between applicable regulations and the recommendations in the publication, the more stringent requirements should be followed.

UST owners and operators need to verify that the closure requirements meet all applicable regulatory requirements. Many jurisdictions require closure approvals and notifications to AHJs.

1.8 Importance of Competent Technicians. AHJs may require contractors to meet specific qualifications prior to the closure of tanks. In addition to what AHJs may require, the use of skilled, professional field contractors with experience in tank systems is an important factor to ensure that all regulatory, safety and technical requirements are met. The use of skilled contractors who have the experience and integrity to perform the job correctly provides the greatest assurance of being able to meet all safety, regulatory and technical requirements.

1.9 Training. Some states have certifications/licensing requirements for UST and AST closure contractors. Therefore, the use of a contractor licensed in those jurisdictions is required.

1.10. Notifications/Permits. Proper notifications, if required, must be made of intent to close a tank system. Obtain any required permits from or provide any notifications required to the appropriate AHJ.