Recommended Practice for Movement in In-service Pipelines

API RECOMMENDED PRACTICE 1117
THIRD EDITION, JULY 2008

ERRATA 1, DECEMBER 2008
ERRATA 2, AUGUST 2009

REAFFIRMED, MARCH 2018

AMERICAN PETROLEUM INSTITUTE

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Pipeline Segment

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Foreword

The few pipeline failures that have followed movement operations demonstrate the need for an industry recommended practice on movement of pipelines. A movement operation increases the longitudinal stress in the segment of the pipeline being moved. In most cases this additional stress has caused no significant problems. In 1978, however, a propane pipeline failed after being moved while in service. Although the movement may not have contributed to the failure, the incident demonstrated the need for uniform guidelines to ensure that the movement of an in-service pipeline is done with reasonable safety. Consequently, the American Society of Mechanical Engineers, the American Petroleum Institute, and the Office of Pipeline Safety Regulation of the U.S. Department of Transportation jointly sponsored a study to establish guidelines for safely moving pipelines without taking them out of service. After the release of the "Guidelines for Lowering Pipelines While in Service" by authors at the Battelle Columbus Laboratories, the American Petroleum Institute solicited qualified engineers responsible for the design, construction, and operation of petroleum pipelines to review the Battelle work and other available work and to prepare an industry recommended practice on the safe lowering and/or raising of in-service pipelines.

The purpose of this recommended practice is to address the criteria, methods, values, and recommendations that should be considered in the design and execution of practical and safe pipeline-movement operations. However, it is impossible to foresee all possible pipeline-movement situations or circumstances. This recommended practice is to be used as a guide for moving pipelines while they remain in service. It is not a rigid standard.

This recommended practice is not intended to be an endorsement of moving pipelines as a method for addressing the safety of an existing pipeline at a new road crossing, railroad crossing, foreign utility crossing, or any other crossing. It is merely intended to provide guidance to pipeline operators and contractors who choose the alternative of moving.

This recommended practice has been revised to reflect that the methodology used in moving pipelines can be used for other pipeline movement operations.

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