INDUSTRIAL
TRAINING SERVICES

GTI ENERGY PSMS COURSE LIBRARY

Designed in partnership with GTI Energy members

Industry experts from GTI Energy and ITS collaborated to create a training series for Pipeline Safety Management Systems.

These training modules, emphasize the importance of continuous improvement and outline safety processes to empower your workforce—leadership, operators, and contractors—to successfully implement a PSMS.

TRAINING OPTIONS FOR EVERYONE

Courses are designed for every level of employee in the pipeline industry.

LEADERSHIP
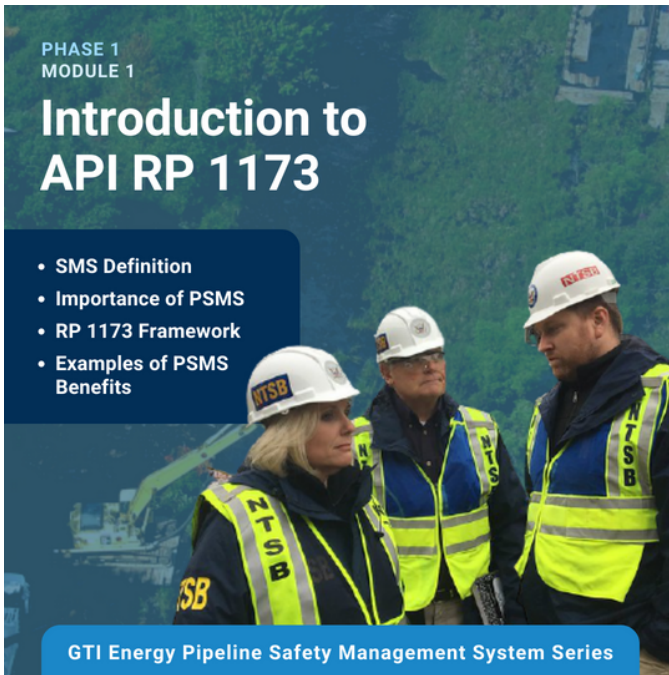
Learn to implement PSMS throughout your organization.

OPERATORS

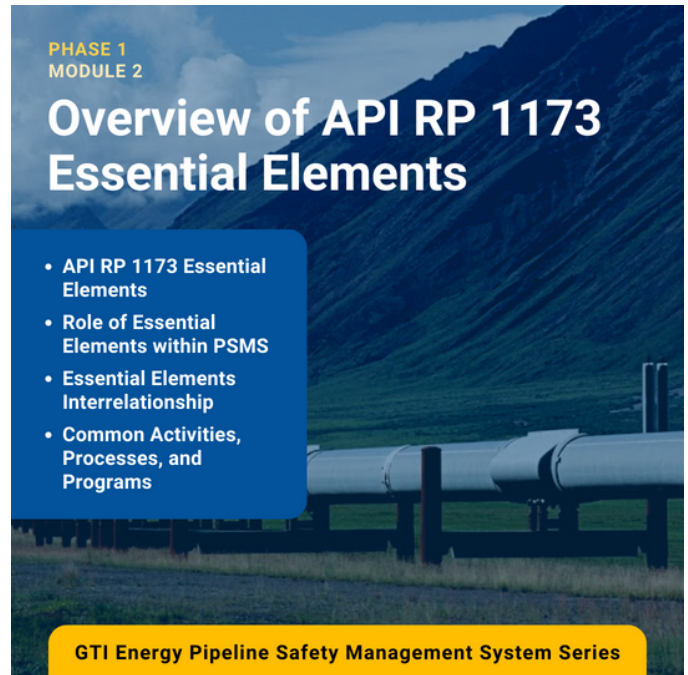Receive tools for continuous safety improvement.

CONTRACTORS

Establish your role in PSMS implementation.

PHASE 1 MODULE 1

Introduction to API RP 1173

- SMS Definition
- Importance of PSMS
- RP 1173 Framework
- Examples of PSMS Benefits

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PHASE 1 MODULE 2

Overview of API RP 1173 Essential Elements

- API RP 1173 Essential Elements
- Role of Essential Elements within PSMS
- Essential Elements Interrelationship
- Common Activities, Processes, and Programs

GTI Energy Pipeline Safety Management System Series

Description: This online learning module covers safety management systems and high-level frameworks for organizations that operate hazardous liquid and gas pipelines under the jurisdiction of the US Department of Transportation.

You'll learn how to define safety management systems, explain the importance of a Pipeline Safety Management System, and describe the API RP 1173 framework at a high level.
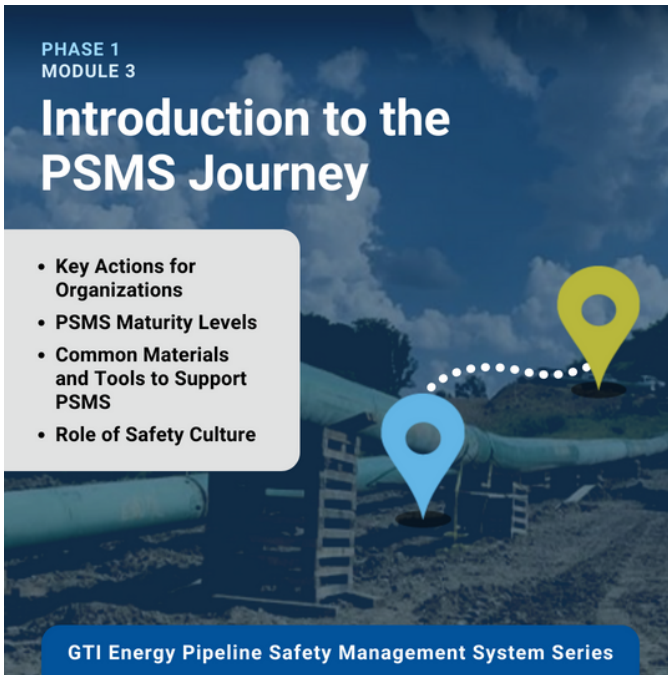
Estimated Duration: 20 minutes

Description: Learn the American Petroleum Institute's 10 Essential Elements required for an effective Pipeline Safety Management System in this online module.

In this interactive module you will learn how to identify the 10 Essential Elements, recognize their role within the PSMS Framework, explain the interrelationship between each element, and identify common activities, processes, and programs associated with each element.
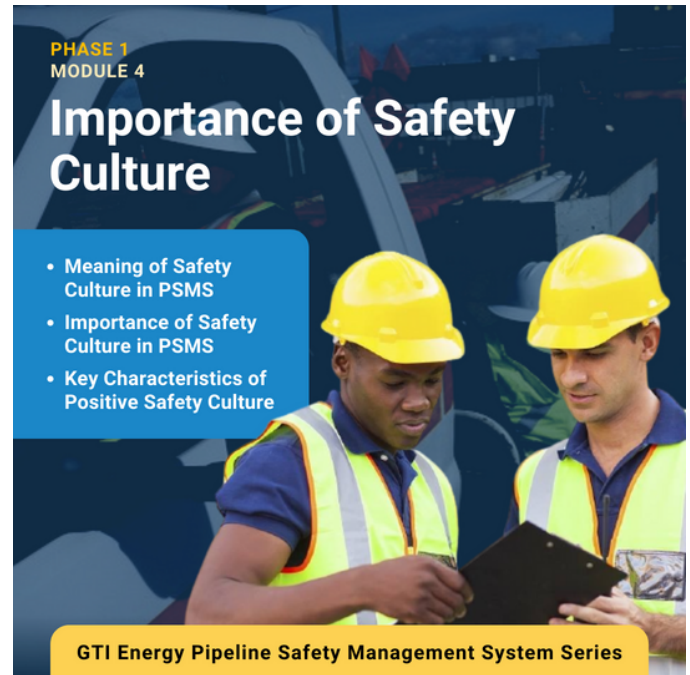
Estimated Duration: 35 minutes

PHASE 1
MODULE 3

Introduction to the PSMS Journey

- Key Actions for Organizations
- PSMS Maturity Levels
- Common Materials and Tools to Support PSMS
- Role of Safety Culture

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PHASE 1
MODULE 4

Importance of Safety Culture

- Meaning of Safety Culture in PSMS
- Importance of Safety Culture in PSMS
- Key Characteristics of Positive Safety Culture

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Description: This interactive module describes common industry tools pipeline operators use to support their Pipeline Safety Management Systems.

Key objectives include learning actions an organization must take to begin a PSMS journey, examples of common tools designed to support your organization in the PSMS journey, and the role of safety culture in a PSMS.

Estimated Duration: 15 minutes

Description: This online module explains the importance of safety culture in implementing and maintaining a Pipeline Safety Management System.

Key objectives include defining the meaning of safety culture and identifying key characteristics of a positive safety culture.
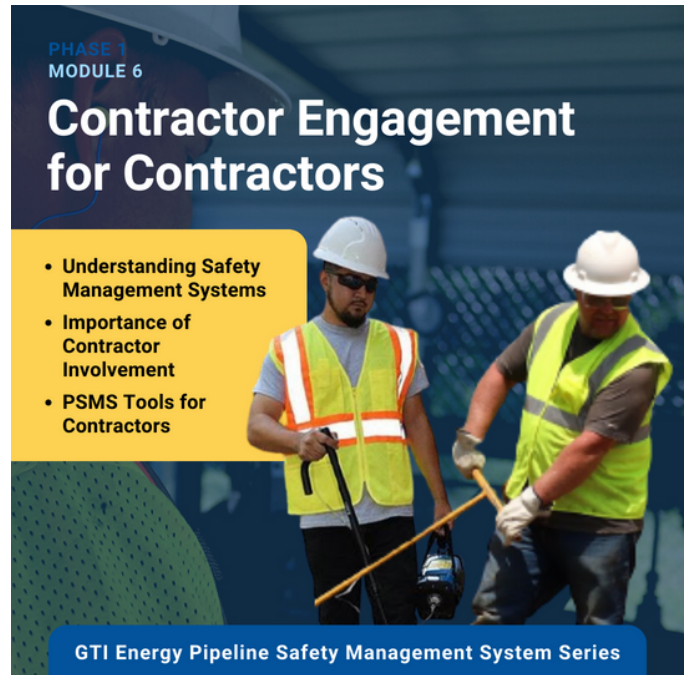
Estimated Duration: 30 minutes

PHASE 1
MODULE 5

CONTRACTOR ENGAGEMENT IN PSMS
Operator Responsibilites

- **Summarize Operator PSMS Responsibilities to Contractors**
- **Importance of Contractor PSMS Involvement**
- **Identify Support Tools for Contractors**

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PHASE 1
MODULE 6

Contractor Engagement for Contractors

- **Understanding Safety Management Systems**
- **Importance of Contractor Involvement**
- **PSMS Tools for Contractors**

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Description: Learn a pipeline operator's responsibilities for engaging contractors and the importance of contractor involvement in this PSMS online module.

With interactive checkpoints, this module will help you identify operator responsibilities, define the importance of contractor involvement, and discover PSMS support tools for pipeline contractors.
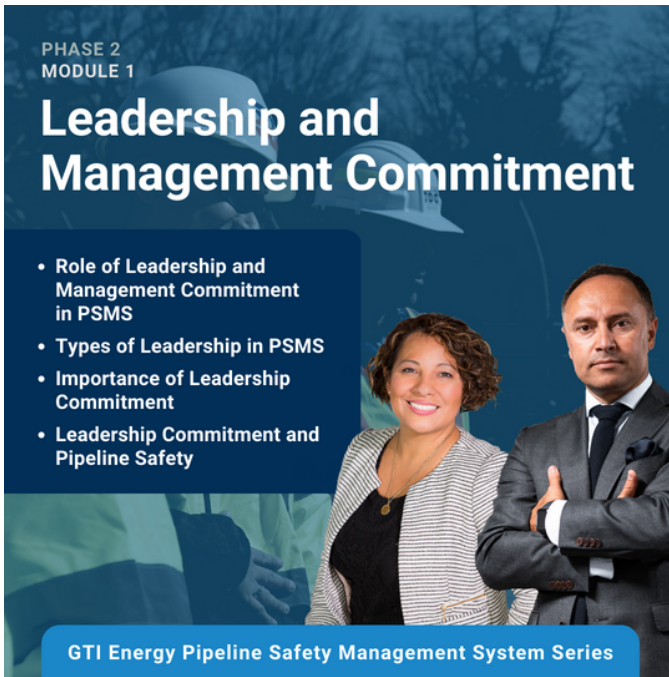
Estimated Duration: 30 minutes

Description: Contractors can learn how to engage in Pipeline Safety Management Systems in this online learning module.

Expect to increase your understanding of Safety Management Systems, define the importance of contractor involvement, and discover PSMS support tools for pipeline contractors.

Estimated Duration: 20 minutes

PHASE 2
MODULE 1

Leadership and Management Commitment

- Role of Leadership and Management Commitment in PSMS
- Types of Leadership in PSMS
- Importance of Leadership Commitment
- Leadership Commitment and Pipeline Safety

GTI Energy Pipeline Safety Management System Series

PHASE 2
MODULE 2

Stakeholder Engagement

- Stakeholder Engagement
- Role of Leadership in Stakeholder Engagement
- Internal and External Stakeholders
- Relationship Between Stakeholder Engagement and Public Awareness
- Field Employee Key Roles

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Description: Discover and review the importance of leadership and management commitment to Pipeline Safety Management Systems in this training module.

You'll learn about the PSMS framework at a high level, benefits of a PSMS, and the importance of leadership and management commitment for effective PSMS in your organization.
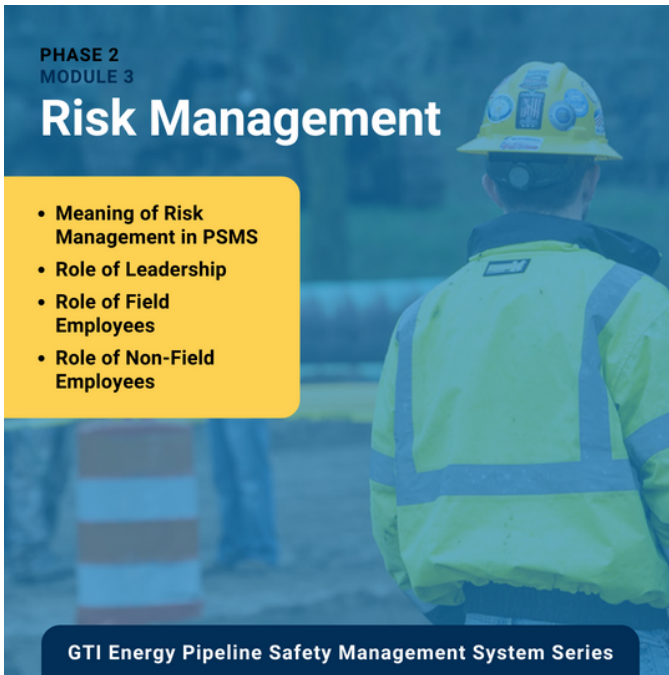
Estimated Duration: 20 minutes

Description: Increase your understanding of how to communicate and interact with internal and external stakeholders and meet the requirements of a PSMS.

In this narrated online module, you will learn the role of leadership in stakeholder engagement, the difference between internal and external stakeholders, the relationship between stakeholder engagements and public awareness, and the role of field employees in stakeholder engagement.
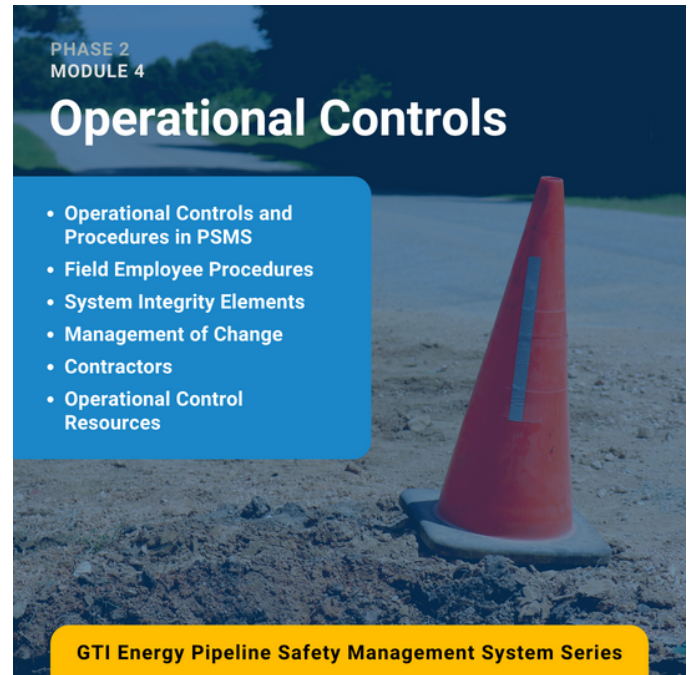
Estimated Duration: 10 minutes

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PHASE 2
MODULE 3

Risk Management

- Meaning of Risk Management in PSMS
- Role of Leadership
- Role of Field Employees
- Role of Non-Field Employees

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PHASE 2
MODULE 4

Operational Controls

- Operational Controls and Procedures in PSMS
- Field Employee Procedures
- System Integrity Elements
- Management of Change
- Contractors
- Operational Control Resources

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Description: Learn how to reduce risk and reduce incidents using risk management skills in this interactive online module.

This module will cover the definition of PSMS risk management, the role of leadership in risk management, and the roles of both field and non-field employees in risk management.
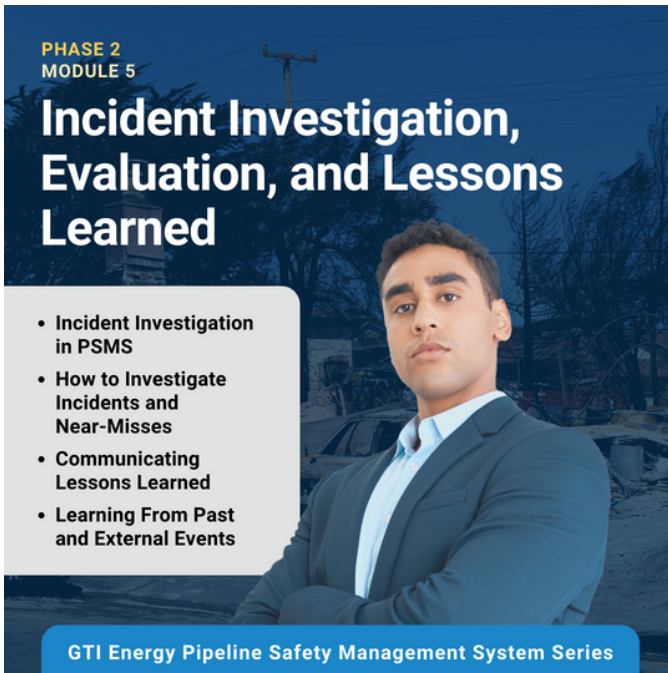
Estimated Duration: 15 minutes

Description: Operational controls play a critical role in PSMS, and this training module will cover the fundamental procedures and work practices for operational controls.

Learn the role operational controls play in PSMS, procedures for field employees and contractors, the elements of system integrity, and management of change. This module also provides outside resources that can strengthen your company's operational controls.

Estimated Duration: 15 minutes

PHASE 2
MODULE 5

Incident Investigation, Evaluation, and Lessons Learned

- Incident Investigation in PSMS
- How to Investigate Incidents and Near-Misses
- Communicating Lessons Learned
- Learning From Past and External Events

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PHASE 2
MODULE 6

Safety Assurance

- Role of Safety Assurance in PSMS
- Operator Use of Audits and Evaluations
- Importance of Reporting and Feedback
- Use of Key Performance Metrics to Determine Effectiveness

GTI Energy Pipeline Safety Management System Series

Description: Increase your understanding of incident investigation and its essential role in PSMS in this narrated online training module.

Topics covered in this module include learning how to identify causes of incidents and near-misses, discover contributing factors, determine potential consequences, enhance safety performance, and define the role incident investigation has in the Plan-Do-Check-Act cycle.
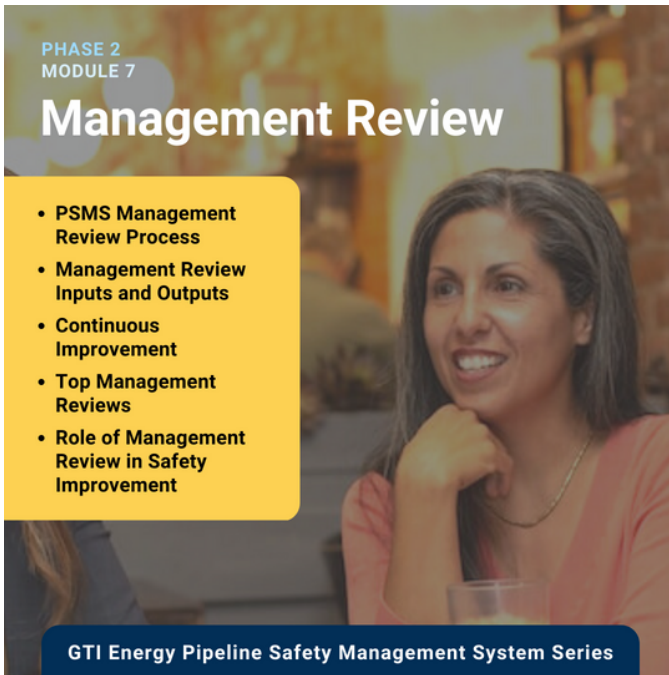
Estimated Duration: 15 minutes

Description: In this interactive online training module, increase your understanding of safety assurance and its role in PSMS.

Learn the role of safety assurance in PSMS, how operators can use audits and evaluations to ensure they are conforming to their PSMS, why reports and feedback are important for a healthy PSMS, and how to use metrics to measure the effectiveness of a PSMS.
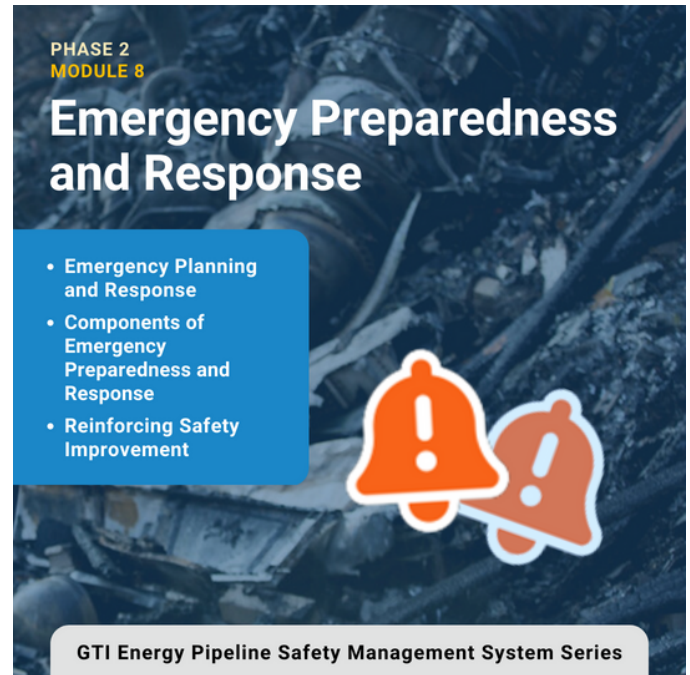
Estimated Duration: 15 minutes

PHASE 2 MODULE 7
Management Review

- PSMS Management Review Process
- Management Review Inputs and Outputs
- Continuous Improvement
- Top Management Reviews
- Role of Management Review in Safety Improvement

GTI Energy Pipeline Safety Management System Series

Description: Learn how to continually improve your PSMS with management reviews in this narrated online training module.

Discover the importance of the management review process, the required inputs and outputs of a management review, the concept of continuous improvement, and the role of top management in reviews.

Estimated Duration: 20 minutes

PHASE 2 MODULE 8
Emergency Preparedness and Response

- Emergency Planning and Response
- Components of Emergency Preparedness and Response
- Reinforcing Safety Improvement

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Description: With this narrated online training module, increase your understanding of emergency preparedness and response in a PSMS.

Topics covered in this module include the importance of planning and preparing for emergencies, the components of emergency preparedness and response, and how this process reinforces safety improvement.

Estimated Duration: 15 minutes

**PHASE 2
MODULE 9**

Competence, Awareness, and Training

- Importance of Pipeline Personnel Competence
- PSMS Updates and Training
- Initial and Refresher Training
- Maintaining Training Records

GTI Energy Pipeline Safety Management System Series

Description: Learn how operators can ensure personnel understand their involvement and responsibilities in a PSMS.

This module will discuss the importance of understanding the roles and responsibilities required for PSMS, the process for keeping personnel updated and trained on their PSMS responsibilities, the need for initial and refresher training, and the importance of accurate recordkeeping.

Estimated Duration: 10 minutes

**PHASE 2
MODULE 10**

Documentation and Recordkeeping

- Differences Between Documents and Records
- Maintaining Documentation Procedures
- Controlling Documentation for PSMS Requirements
- Documentation Retrieval and Legibility
- Record Retention Policies and Legal Requirements
- Example Documentation

GTI Energy Pipeline Safety Management System Series

Description: For operators implementing a PSMS, discover the role documentation and record keeping play in developing and maintaining a healthy safety plan.

Included in this online interactive module are discussions about the difference between a document and a record, procedures for identifying and distributing PSMS documents, the importance of controlling documents and records to prove conformity to a PSMS, why documents must be legible and retrievable, why operator records are essential, and examples of a PSMS document.

Estimated Duration: 10 minutes