



**TEAM**<sup>®</sup>



**Mechanical  
Integrity  
Services**

# The Importance of Mechanical Integrity

Plant integrity, safety, and reliability are major concerns to plant operators and managers. TEAM's Mechanical Integrity programs utilize management system frameworks, including the development of policies and procedures, competency management, and effective metrics to maintain the asset in a fit-for-service condition while extending its remaining life in the most reliable, safe, and cost-effective manner. It ensures process equipment is fabricated from the proper materials and is properly installed, maintained and replaced to prevent failures and accidental releases. It is essential that a healthy process safety program incorporate Mechanical Integrity so that the combination of the likelihood of failure and the consequence of failure makes the risk to people, to the environment, and to the company as low as reasonably practical.

## Enhance Your Process Safety Management Program

Process safety is a disciplined framework for managing the integrity of operating systems and processes that handle hazardous substances. Since the introduction of the OSHA process safety management (PSM) standard (29 CFR 1910.119) in 1992, companies have committed considerable effort and expense to developing PSM programs. Unfortunately, serious incidents and audits all too frequently point to gaps in PSM implementation.

TEAM's effective Mechanical Integrity program utilizes a systematic approach to evaluating the whole process safety management process. Using this approach, the process design, process technology, process changes, operational and maintenance activities and procedures, non-routine activities and procedures, emergency preparedness plans and procedures, training programs, and other elements that affect the process are all considered in the evaluation.

Regardless of whether a company is trying to establish a new process safety management system, revamp an existing underperforming system or improve a solid system to achieve higher performance, TEAM can help.

## Good Data Makes All the Difference

The number one process safety compliance issue most companies struggle with is the correct collection and record keeping of essential data. Good data management can make all the difference between a successful PSM program and a failing one. No matter how many inspections and other integrity tools that are utilized, without good data it is hard to truly achieve a comprehensive understanding of the integrity of an asset.

TEAM's Mechanical Integrity services include a thorough audit of a company's inspection process, data recording and data management procedures. The goal is to showcase areas for improvement to ensure the data collection process is providing the company with the safest and most reliable operating procedures, while complying with all applicable codes.

## Mechanical Integrity Services

- Increase process safety
- Reduce risks
- Prolong equipment life
- Meet compliance requirements
- Eliminate costly fines associated with non-compliance
- Improve data management
- Improve production

## A Standard Audit Review of:

- Management responsibility
- Equipment selection
- Inspection, testing and preventive maintenance
- Training programs
- Mechanical Integrity program and procedures
- Quality assurance
- Equipment deficiency management
- Equipment-specific integrity management
- Mechanical Integrity program implementation
- Risk management tools

TEAM provides a detailed report of audit findings and will recommend a customized strategic course of action based upon the findings in the report.

TEAM strictly adheres to AWS, API, ASME, ABS, and NACE codes, guidelines, recommendations, and specifications.

## Analyzing the Data

TEAM utilizes the PS AIM: The New UltraPIPE® Process Safety Asset Integrity Management Software to analyze the data collected from a facility's audit. This powerful tool enables TEAM and facility operators to input, organize, analyze and document thickness inspection data for corrosion monitoring and predictive inspection scheduling.

- Track inspection schedules for piping, vessels, tanks, relief valves, etc. (thickness, visual, internal, etc.)
- Analyze thickness data to predict corrosion rates and remaining life
- Evaluate localized corrosion (per AtSME B31G) on piping for cost-effective repairs before potential problems occur
- Create scheduling reports: what needs inspecting and when?
- Manage documents for inspection history (Word, Excel, PDF, etc.)
- Dynamically link inspection drawings to any equipment (AutoCAD, etc.)
- Automatically display CML information on the drawing
- Provide Risk Based Inspection (RBI) scheduling

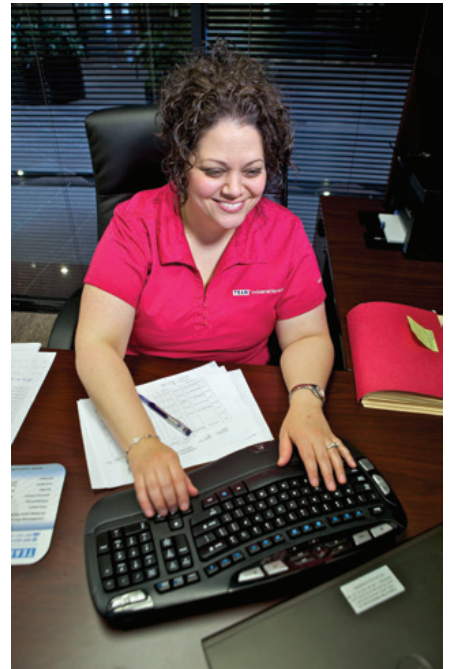
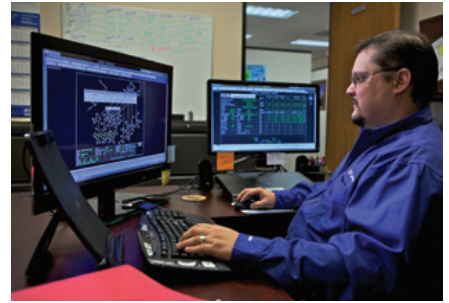
## Encouraging A Healthy Process Safety Culture

At the end of the day, people are the key to a healthy process safety culture. TEAM's Mechanical Integrity services place an emphasis on training. TEAM provides written documentation of 30 different procedures for mechanical integrity, which is reviewed with project managers via a two-day training course. The documentation is dynamically linked for users to easily access a specific procedure and associated documents as needed. The procedure manual is available both online and offline.

When the objectives and effective implementation of a mechanical integrity program go beyond just meeting compliance and also include goals to improve equipment reliability, reduce unplanned down time, and to reduce and mitigate risk, then increased worker safety, better relationship with the community, and profitability can be expected.

## Understanding the Codes for Compliance

A facility's compliance requirements are influenced by federal, state and local jurisdictions, as well as individual organizations. Our Mechanical Integrity group is extremely well versed in pertinent codes and standards of OSHA's process safety management (PSM) and EPA's risk management program (RMP) regulations. They bring over 50 years of expertise and knowledge of developing solid Mechanical Integrity and QA/QC programs to the industry. TEAM's Mechanical Integrity group understands the guidelines of the code and how to interpret the code. This knowledge has helped many facilities avoid costly compliance fines.

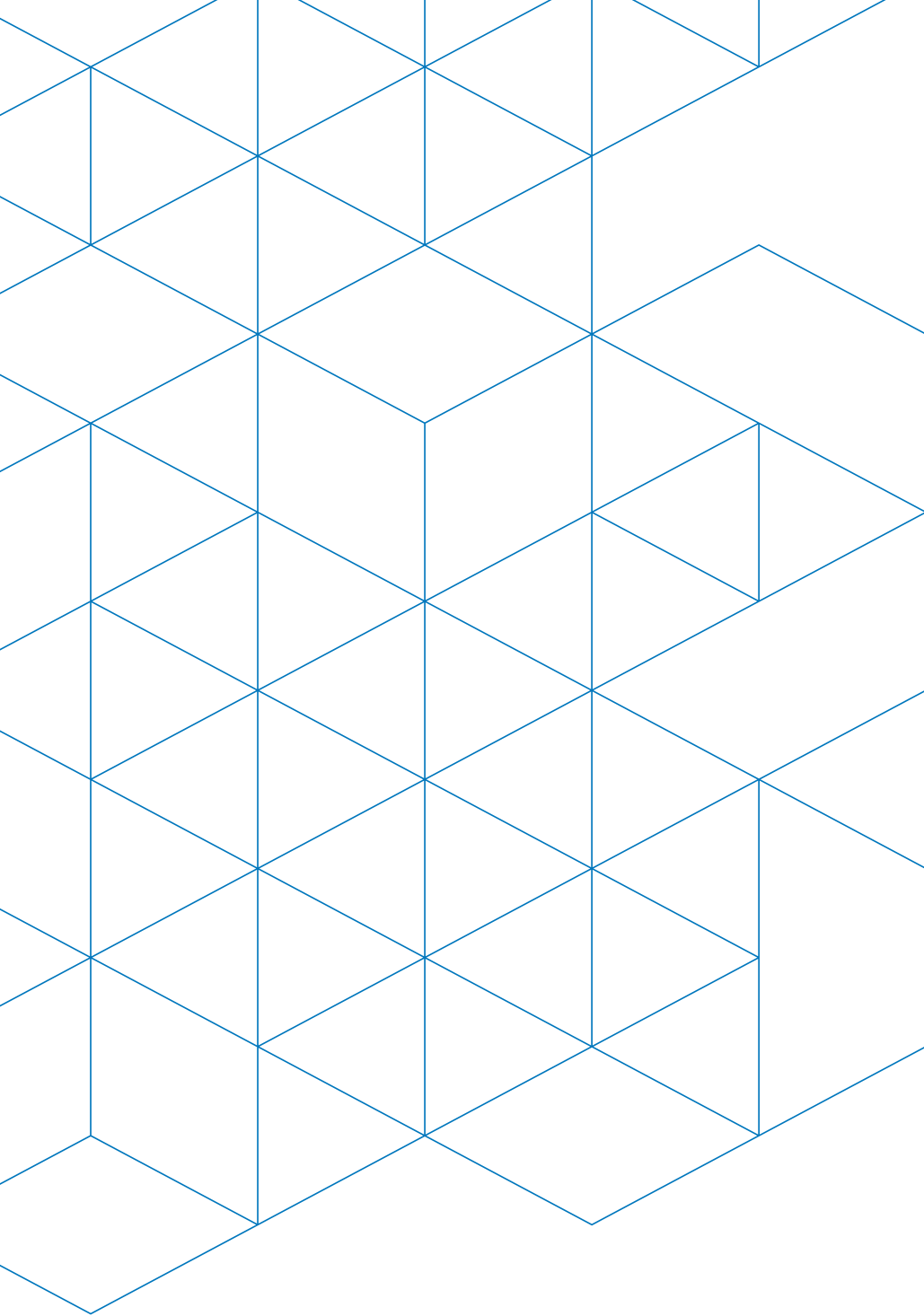


## Why TEAM?

- Single supplier, single point of contact worldwide
- Company-wide commitment to safety
- Trained and certified inspectors
- Full-service, high-volume labs
- Complete range of inspection services
- Advanced testing methods and techniques
- Engineering, manufacturing and technical support
- World class quality processes and systems

**TEAM experts are available 24 hours a day, 7 days a week, 365 days a year.**

**Find your local contact at [TeamInc.com](http://TeamInc.com).**



For over five decades, TEAM Inc. has been providing asset integrity to diverse industries, including oil & gas, aerospace, petrochemicals, pipeline, and power generation. Our integrated service approach covers everything from inspection to repair, ensuring our communities operate safely and efficiently.

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