



# Mechanical Integrity Services

Mechanical Integrity (MI) programs have proven to be one of the most difficult process safety management elements to effectively develop and implement. OSHA's Refinery National Emphasis Program (NEP) reinforces that many facilities continue to be challenged by the following MI issues:

- Scope of equipment to be included
- Written procedures to support the program
- Inspection, test and preventative maintenance programs – cost-effective and compliant
- Effective systems to identify and manage equipment deficiencies
- Quality assurance requirements

## Uniquely Qualified

ABS Consulting has helped many facilities to develop and implement MI programs that meet OSHA process safety management and EPA risk management program regulations. Our personnel are MI experts who understand regulatory requirements and expectations. Our experience and qualifications are evident in our participation in many MI initiatives, such as:

- Authoring the book, *Guidelines for Mechanical Integrity Systems*, for the CCPS
- Leading BP US Refineries Independent Safety Review Panel technical assessments including MI program assessments
- Providing MI training to hundreds of industry personnel
- Conducting the first published review of the MI citation history

## Services:

- > **Assess & audit MI programs** – help facilities fulfill the compliance audit requirement of the regulations or establish the baseline for the MI program so that improvement areas can be identified and addressed.

- > **Assist with OSHA's National Emphasis Program (NEP) inspections** – provide personnel to team with facility personnel to evaluate the current MI program with respect to the NEP inspection criteria in addition to assisting facility personnel during the NEP inspection.
- > **Develop implementation or improvement plans** – assist in developing realistic implementation plans for new MI programs and improvement plans for existing MI programs.
- > **Develop the management system for MI programs** – that includes:
  - Written description of the overall MI program
  - Inspection, test and preventative maintenance (ITPM) plans
  - Maintenance training requirements
  - Written procedures required
- > **Management system implementation** – assist in implementing the MI management system including:
  - Compiling equipment lists
  - Assembling equipment files and vendor manuals
  - Developing procedures written for process maintenance activities (i.e., ITPM and repair/replacement activities)
  - Developing procedures for quality assurance activities
  - Developing ITPM schedules and inputting the schedules into the computerized maintenance management system
  - Developing training materials
  - Conducting maintenance training

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- > **Develop & manage the inspection & test program** – develop the details associated with inspection and test program including equipment-specific plans and procedures. If your facility has limited resources, we can help manage the inspection and test program or assist in applying advance inspection tools, such as risk-based inspection (RBI) and reliability-centered maintenance (RCM).
- > **Perform equipment inspections & tests** – provide inspection and testing services for fixed equipment (e.g. pressure vessels, atmospheric storage tanks, piping). ABS Consulting can also supplement our team of inspectors with a nondestructive testing (NDT) partner to complete these baseline inspections and tests.

**ABS Consulting services will support your MI program objectives by:**

- Assisting your company to satisfy regulatory expectations in an efficient and effective manner
- Providing a management system focus that addresses all MI requirements and helps support maintainable, executable systems
- Providing services which are based upon sound engineering practices
- Increasing your personnel’s knowledge of MI requirements, expectations and industry best practices

ABS Consulting wants to be your partner for all of your MI program needs. From program assessment to management system development and implementation support and staff augmentation, we can assess where you are and then help position you to where you want to be – reliability, availability, maintainability and operability to support plant profitability.

Sustained **Safety**. Managed **Risk**. Optimized **Integrity**.

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