

Process Safety Management – Natural Gas Applications

Overview

Natural gas and liquid natural gas (LNG) comprise one of the fastest growing energy sectors in the United States. These facilities have become more complex and subjected to increased scrutiny due to more aggressive operating parameters and increased state and federal regulations. Process Safety Management (PSM) is an analytical tool composed of organizational and operational procedures, design guidance, and audit programs intended to establish risk management and safety programs that prevent or minimize the consequences of catastrophic accidents in facilities where hazardous and flammable media is stored, transmitted, or distributed.



While many companies currently apply individual safety practices, such as Process Hazard Analyses (PHA), Layer of Protection Analyses (LOPA), and Management of Change Processes (MOC), these individual safety components provide only a partial level of necessary protection. Process Safety Management provides a more holistic and quantitative system to manage increasing risks while making better business decisions. In addition, PSM programs function on corporate, engineering, and operational levels, utilizing the latest standards and industry best practices to protect employees, assets, and the public.

EN Engineering's PSM expertise

EN Engineering has deep roots in the natural gas industry with extensive, first-hand experience operating and maintaining gas infrastructure. Our PSM experts have operational experience and understand the challenges of the natural gas industry. They apply this expertise to natural gas transmission, distribution, processing, supplemental gas facilities, and storage infrastructure, and help operators understand the benefits of a PSM program. Even if PSM regulatory requirements do not currently apply to your facility, developing and implementing a comprehensive PSM program can help minimize accidents, maximize profits, and protect people and the environment. PSM may also ensure process continuity (uptime), improve productivity, mitigate financial loss, and avoid negative publicity from incidents.

PSM is often viewed as an initiative to be completed within a set time period; however, this attitude is not congruent with the intentions of PSM. PSM is an ongoing program to be maintained as long as the covered processes are operating. Proper maintenance of PSM programs can consume significant company resources; so many companies utilize EN Engineering's highly-experienced team to provide efficient coordination and maintenance of their PSM programs. Our experts can perform a Process Safety Gap Assessment and scrutinize every aspect of your program and facilities, following up with a detailed report that outlines gaps and provides corrective measures to ensure optimization of your safety program.

PSM Services

Our PSM experts can help develop an overall PSM program or individual element definition and program write-ups, including:

- Process Safety Information
- Process Hazard Analyses
- Operating Procedures
- Training
- Mechanical Integrity
- Incident Investigations
- Management of Change

Applications

Natural Gas Industry

- Distribution
- Storage
- Transmission
- Compression
- Processing
- LNG
- Propane-air injection
- Gas processing

Liquids Pipelines & Terminals

- Pump stations
- Terminals
- Storage facilities
- Truck loading

Complementary services

With more than 1,000 employees nationwide, the EN Engineering team includes experts in fields that complement the resources of our Process Safety Management team. We also offer our clients expertise in pipeline engineering, industrial solutions, automation services, integrity services, corrosion protection, electrical engineering, and environmental services, ensuring comprehensive solutions and seamless project execution.