

Process Safety Services

Problem Statement

Process facilities are under intense scrutiny from the public and government to improve the safety of their processes involving hazardous materials. Owners and operators must also contend with factors such as extended equipment life and human performance errors in minimizing the risk of a catastrophic accident. The government has established regulatory standards for industry in the development of comprehensive accident prevention programs. Federal regulations include the following:

- OSHA 29 CFR 1910.119 (PSM)
- EPA 40 CFR Part 68, (RMP)

Companies face a number of hurdles to successful program implementation and maintenance. A one-size-fits-all approach is destined to fail since facilities, even those under the same corporate umbrella, operate in unique environments. Also, there is often unfamiliarity with or uncertainty about how to address the various components of the regulations. A common sense and systematic approach to process safety is needed to maximize a program's effectiveness given these barriers to success.

The GP Solution

For over 35 years, GP has been a leading provider of Engineering, Workforce Development, and Technical Training services to government and corporate America. Our background includes long-term involvement with federal and local governments and with risk-sensitive facilities in the nuclear power, chemical, food and beverage, pharmaceutical, metals, refining, and defense industries. Since the inception of the PSM and RMP regulations, GP has provided Process Safety Services at more than 100 client sites. GP offers a proven, systematic, value-added approach to regulatory compliance. Our programs are aimed at maximizing performance and safety gains while achieving compliance standards at reasonable costs.

GP Services

Design Basis Documentation
Compliance Assessments
Mechanical Integrity Programs
Operating Procedures
Management of Change Programs
Training & Documentation



GP offers a full range of Process Safety Services. The following services are representative of GP's capabilities.

Design Basis Documentation

- Equipment Sizing Basis
- Data Collection/Verification
- Engineering Analyses
- P&ID Updates

GP offers many services that provide the required documentation for covered equipment and systems. GP collects and verifies field nameplate data, generates equipment specification sheets, and creates equipment libraries. Our engineers can determine design standards and perform analyses to verify and document equipment design bases. We also verify and update Piping and Instrumentation Diagrams (P&IDs) and convert drawings to CAD.

Compliance Assessments

- Implementation Verification
- Regulatory Compliance

As an independent third party, GP offers impartial program assessments to evaluate current practices, policies, and procedures; determine regulatory compliance; recommend appropriate program development, modification, or consolidation; and develop program planning. Routine compliance audits are required by the regulations.

Mechanical Integrity Programs

- Inspection and Testing
- Quality Assurance
- Equipment Categorization
- Preventive Maintenance Procedures

GP develops Mechanical Integrity Program procedures to address program organization, responsibilities, training, safe work practices, covered equipment, quality assurance, data management, preventive maintenance, and corrective actions. We develop inspection plans and preventive maintenance procedures to maintain the ongoing integrity of equipment, and we analyze inspection data to determine the acceptability of equipment. GP can also perform Non-Destructive Evaluation (NDE) and Fitness-for-Service (FFS) determinations of equipment.

Operating Procedures

- System Descriptions
- SOPs
- Emergency Procedures
- Alarm Guides
- OJT Guides
- Operating Limits

GP works with clients to design a standardized operating procedure (SOP) format and can develop a writer's guide to ensure procedure uniformity. Operating procedures include steps for each operating phase, operating limits, safety and health considerations, and the function of safety systems. System descriptions detailing the covered processes, alarm response guides, and on-the-job training (OJT) guides are also typically developed.

Management of Change Programs

- Procedures
- Forms and Checklists
- Tracking Systems
- Implementation

GP develops comprehensive Management of Change (MOC) programs to manage changes to process chemicals, technology, equipment, procedures, organization, and the facility. We identify the scope of the program, create forms and checklists, develop MOC tracking systems and assist with program implementation.

Training & Documentation

- Job Task Analysis
- Training Materials
- Course Delivery
- Documentation

GP performs job task analyses and develops performance-based training programs. We develop training materials, establish evaluation techniques, and provide trainers to present developed materials. GP can develop classroom, on-the-job, web-based, and computer-based training courses.



Leading the World to Better Performance

For more information,

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