Checklist

PROMETHEUS GROUP

Process Safety Management Requirements

Process safety management is paramount to ensuring an organization's assets, processes, and personnel remain safe, compliant, and operationally efficient. That means you need robust process safety measures in place to ensure you account for every potential scenario and outcome. To help you find the right fit for your process safety needs, we've created this comprehensive checklist of what you should look for in a process safety management solution.

Yes	No	Functionality
		A comprehensive and fully configurable software package for barrier and process safety management, with end-to-end capability available off-the-shelf.
		Quick implementation timeline of 3 – 6 months, with no need for a custom build to incorporate your processes.
		Customized and contextual rulesets with flexibility and sophistication to adapt to your needs and strategy.
		Solution includes proven industry history and standards built straight into the system.
		Ability to view the cumulative risk level of your entire portfolio or by site through barriers.
		Compliant with your industry's international standards, e.g., The International Association of Oil & Gas Producers (IOGP) Operating Management System Framework 510 Apr 15.
		Barriers are designed according to your industry standards, e.g., IOGP Standardization of barrier definitions 544.
		Dynamic visualization of barrier health to show the cumulative risk profile from multiple risk sources.

Yes	No	Functionality (cont.)
		API integration capabilities that can leverage information from multiple data sources to create an overall risk picture.
		Differentiation between different types of metrics, for example active and overdue work orders.
		Built-in risk assessment management system that supports managing risk assessments directly in the system or integrating them from an external system.
		Swiss cheese model with easy-to-understand coloring to indicate the current operational risk level so the operator and auditors can be sure they are operating at an acceptable level of risk.
		Ability to evaluate and implement measures to mitigate performance deviations.
		Leverages integrated data to perform bow tie analyses based on the actual condition of safeguards.
		Integrates with enterprise resource planning (ERP) and computerized maintenance management (CMMS) systems to provide the process safety status of your portfolio down to each asset.
		View of interdependencies by human factors, operational risk, deferment or deviation, process safety, safety-critical elements, and reporting.
		Available built-in risk assessment process to integrate your own risk matrix.
		Visualization of risk according to configurable rulesets.
		Integration with maintenance systems to show the status of open (active), overdue, and safety-critical records and how they impact barrier health.
		Ability to set your own rules and thresholds for managing expected performance standards.
		Holistic view into cumulative process safety risk in operations for a clear picture of the risk level to stakeholders from boots on the ground to C-levels.
		Provides regular updates on barrier operation (e.g., barrier strategy and performance standards).
		Data and reports available to prove compliance with standards for auditors.
		Access to risk rankings to help determine prioritization and schedule.
		Prioritization of highest risk items.
		Visualization into dependencies between different barriers.
		Ability to view details of the barrier health status and make cross-functional analyses about cumulative risk.

Yes	No	Risk Assessment & Prioritization
		Visualization rules that can be applied to risk rankings, using assessments and integrated data to determine the current highest risk.
		Manages engineer-led risk assessment process for both qualitative and quantitative assessments associated with each barrier.
		Evaluate the severity of hazards and consequences for human safety, environment, and assets.
		Risk assessment modules that include teams, technical reviews, endorsements, and approvals with logged actions for auditing.
		Risk assessment and dynamic barrier management aligned with industry standards.
		Complex risk assessment views for each safety barrier in visual displays that are easy to interpret and act on.

Yes	No	Integrations
		Integration with ERP, CMMS, and plant information systems/distributed control systems (PI/DCS) systems to visualize the current state of assets and day-to-day management of process safety risks.
		Information-gathering capabilities from external and manual sources.
		Integrates with CMMS systems like SAP, Oracle, and IBM Maximo to exchange information bidirectionally.
		Gather data from Environmental Health and Safety (EHS) system integrations daily to assess cumulative risk level.
		Integration capabilities with permit-to-work software.

Yes	No	Data Collection & Monitoring
		Easy data collection for barrier performance to see safety improvements when action is taken based on your data.
		Continuous monitoring of barrier health to detect degradation early.
		Maintained record of adherence to mandated risk control processes.
		Inventory of all barriers within the facility, synced with CMMS solution.
		Identification of degraded equipment, emergency breakdowns, maintenance, past due maintenance, and overdue change operations via PI/DCS.

Yes	No	Documentation, Communication, & Collaboration
		Risk information access for relevant personnel anytime, anywhere in the world.
		Access to transparent risk data and workflow processes that align with peer reviews, endorsements, and execution of process safety-critical tasks.
		Maintained records of barrier specifications, testing, maintenance history, and performance.
		Effective communication of barrier status across teams.
		Documentation of barrier locations, functions, and dependencies.
		Ability to color code and customize status of barrier conditions for clarity and consistency across teams.
		Record of pending actions requiring review, endorsement, or follow-through for transparency and accountability.

Yes	No	Training, Safety & Competency
		Visibility into condition of mitigation components, hazards, and controls for each risk assessment.
		Automated warnings if control elements go offline or if workers are overloaded with too many tasks.
		Daily reporting capabilities for safety-critical failures and non-conformances.

Yes	No	Compliance & Regulation Management
		Accurate and timely regulatory reporting and industry compliance reporting.
		Compliant with professional services automation (PSA) risk-based regulation, management regulations on barriers, and performance-based regulations.
		Proper execution of process safety mitigation measures and implementation of completion tracking.
		Generation of annual reports to verify compliance with required performance.
		Visualization of barrier safety status in addition to trends over time.
		Verification of long-term performance for audits, inspections, and management reviews for increased accountability.
		Data available to prove compliance with standards for auditors.
		Visibility into residual risk and mitigations in play for review by technical authority groups.

Yes	No	Analytics & Reporting
		Active evaluation of barrier changes and improvements to safety-critical procedures or routines.
		Robust audit reports for management teams, internal stakeholders, and regulatory bodies.
		Data analytics that enable cross-functional analysis of barrier health in detail, so users can evaluate the condition in their bow tie diagrams, risk assessment completions, etc.
		Reporting and follow-up capabilities for anomalies, and analytics on whether the process safety risk picture has changed significantly to reduce the overall risk level.

Want help identifying the features you need in an effective process safety management solution? Reach out to us today to have one of our RiskPoynt professionals walk you through what you should look for.

CONTACT US