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The process safety challenges facing today's industry

Preventing the process safety incidents is more important than ever

OSHA's PSM remains the driving force in preventing or mitigating high-risk chemical release incidents. As stated by OSHA: "The main purpose of PSM of hazardous chemicals is to prevent unwanted releases of hazardous chemicals, especially [where] employees and others [could be exposed] to serious hazards. An effective PSM program requires a systematic approach to evaluating the whole chemical process."

Focusing exclusively on the PROCESS SAFETY elements of PSM, we at **GLOBORISE**, strive in putting to service the technological advances for assisting the process industry avoid risky operations by enhancing operations engagement, enforcing a procedural workflow with no rooms for shortcuts, dynamic monitoring and proactive alerting on competency gaps and process deviations. We aim to create a ZERO INCIDENT environment and protect industrial assets and workforce.

Our understanding

- Our experience indicates that given the complexities involved, companies can't address compliance simply on an ad-hoc or low-priority basis but instead should develop a risk mitigation program to satisfy OSHA's PSM.
- OSHA stresses that implementation outweighs documentation. System effectiveness is a key for PSM success.
- The safety of employees and the financial success of any firm depend upon its leadership on process safety
- In a perfect world, chemical engineers would oversee the complexities of a plant 24 hours a day. However, many engineers don't aspire to such an operations role and even those that do wouldn't enjoy spending their career working rotating shifts. Finding and keeping the best people will mean success for your company.

Health and safety isn't expensive, it's priceless. Developing the knowledge and skills of workers, after all, manages the day to day risks which are central to your business's prosperity.

Globorise's combination of decades of process control & process safety experience and expertise, early adaption to the latest technological developments, full flexibility to deliver customized solutions and continuous engagement with the client ensures a continuous and sustainable product performance at site.

Making the difference

The developers of the technologies are the certified and experienced PROCESS SAFETY professionals who have hands on experience of working the plant shift operations. Their understanding of operational risk and the ways to reduce it, if not eliminate, gives us an upper hand in making our technologies a practical tool that can be easily adapted and used by any process industry.

We guide and ensure that the process industry follows the OSHA / CCPS PSM guidelines through a policy/ procedural/ technology framework with proper validation of each involved step, thus almost eliminating the potential risk hazards from the process.

Our Process Safety Consultants provide an onsite guidance in setting, updating and auditing the PSM system



procesSVision® eLogbook More than just a shift logging...

Value Preposition:

- It IMPROVES SHIFT HANDOVER, centralize all communications, consolidates antiquated systems, and increase transparency to aid auditing.
- Reduces the process safety risk by automatic CARRY FORWARD THE ON -GOING ACTIVITIES to the next shift. It also brings greater visibility of on-going issues.
- REAL-TIME ENGAGEMENT of all the stakeholders in the plant operations as an automatic alert will be generated to all concerned upon "Abnormal" activity logging.
- Ensure CLEAR, READABLE AND SEARCHABLE SHIFT WORK LOG that promotes plant and process safety, accountability and critical task continuity or closure.
- Data Analytics The centralized database can be effectively used for ASSET RELIABILITY, UNIT DOWN-TIME AND PRODUCTIVITY ANALYSIS
- IMPROVES THE REGULATORY COMPLIANCE, health & safety and corporate governance.



Salient Features:

- Proper shift handover ensuring proper information transfer between the shifts thus reducing the risk of any process safety incidents
- Feature enforces an incoming shift reliever reads all the critical logs at the beginning of this shift
- Fully customizable interface to match an existing format ensuring easy and smooth rollout and adaptability
- Tracks and carry forward on-going activities
- Automatically assigns and tracks routine activities
- Key operating parameters are captured automatically through OPC connectivity based on the predefined interval
- Create automatic alerts on abnormal activity log entry ensures a real-time engagement of support functionality
- Allows dynamic shift crew replacement
- Easily adaptable to different shift plans
- Flexibility of altering logging formats for a period during special tasks like plant shutdown.
- Manages shift roaster
- Support automatic emails and SMS alerts
- Optional data analytics feature allows to perform various reliability analysis
- Electronic, centralized, secured and searchable record with a backup facility
- Easily integrated with ERP/SAP/OSI-PI or any third-party database
- Integrated field operator logs through hand-held mobile devices
- Faster implementation
- Role-based access. No limits of concurrent users

Contact our local representative or email us at sales@globorise.com to schedule a product demo

procesSVision® eSOMS

Shift Operations and Risk Management System

Globorise's eSOMS delivers a game changing, effective and reliable shift operations management system that averts process safety risks.

Value Preposition:

- RISK MANAGEMENT avoids the risks that can hurt the organization
- STAFF EMPOWERMENT –empowers the field and operational staff by providing the task critical information whenever required
- BETTER EMPLOYEE ENGAGEMENT it increases the cross functional knowledge transfer
- REDUCES COMPETENCY GAP real time monitor of competency gap results in proactive and timely action to mitigate the risk and make the performing task safer
- INCREASE PRODUCTIVITY with reduced risk operation, unwanted events/incidents are avoided thus increasing the plant as well as personnel productivity
- BOOST THE SAFETY CULTURE –a field operator can execute an assigned task by being more alert of the involved risk
- REDUCE OPERATIONAL COST, RISK AND OPTIMIZE RESOURCES – with improved risk awareness and safety, assisted with advanced analytics helps the organization better understand the area for safety improvements

Salient Features:

- Provides all the critical information of an asset upon BARCODE / RFID TAG SCAN.
- Displayed information includes,
 - DESIGN AND OPERATING LIMITS,
 - ITS CONTENT,
 - CURRENT OPERATING PARAMETERS,
 - CURRENT ACTIVE ALARMS, if any
 - o **CURRENT SECURITY BYPASS**, if any
 - ACTIVE PERMIT on that asset
 - 24 HR PROCESS TREND of key operating parameters
 - LIST OF LAST FIVE MAINTENANCE ACTIVITIES performed
 - o ASSET DATASHEET (pdf form), on demand
 - RELATED PROCEDURES/ INSTRUCTIONS, on demand
- Automatic alert of any area procedure/instruction changes and forces the user to read it upon logon
- Tracks field operator in the field
- Creates dynamic alert on competency gap, upon entering the field area if related training is not imparted
- Allows operator to generate alert to the staff in the control room
- Allows Audio / Video communication between field operators and Control room staff. It allows operator to engage control room staff via video during field operation
- Field operator shift logging / operator rounds with proper shift handover
 - Alerts operator on critical alarm / security bypass activation
 - Alerts and tracks assigned tasks to the field operator
 - realwear version makes it a hands-free experience of using it that works on voice tags for all the application features.
 - Easily integrated with any Wi-Fi enabled IP type field devices or wireless HART transmitters (e.g. surveillance camera, Safety valve passing, Safety shower operation)



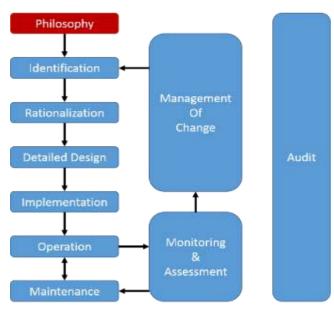
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procesSVision® eAPA

Creates and manages site Alarm Philosophy

Globorise's eAPA (Alarm Philosophy Author) helps organization to document the objectives, guidelines and work processes for alarm management at a site

It is facility specific document (to follow specific guidelines of ISA 18.2) provides guidance for alarm management practices for the facility, in all life cycle stages. It includes definition of an alarm, the alarm handling capabilities of the control system, and other site-specific details. The philosophy document establishes the processes for planning and documentation pertinent to other life cycle stages.



The ISA 18.2 Alarm Management Lifecycle

procesSVision® eAPA creates a comprehensive design and guideline document that define a plant standard employing a best-practise alarm management methodology. It promptly guides the organization through all the necessary aspects of an alarm philosophy that comply with ISA 18.2, EEMUA 191 and IEC 62682 standards.

Value Preposition:

- Uniform standard roll-out across the organization
- Increased profitability effective alarm system ensures less process upsets
- Improved process safety as it avoids the risky operations
- Enhanced safety culture
- Alarm management system audits and KPIs ensure better sustainability through continuous improvement

Salient Features:

- Developed by experts who are authority in Alarm Management field having APD authoring
- Confirms to ISA 18.2, EEMUA 191 and IEC 62682 guidelines
- Step by step guided approach to create APD with all the necessary elements required for compliance audit
- Clear and simple understandable language
- Follow the authoring, review and approval cycle online with digital approval. It track the changes/ revisions
- Can be deployed on the business network, making it available to all. Role based access and approval authorization makes it easy to update and publish an amendment
- Premium annual support ensures the philosophy is always adapted to the latest updated standards/ industrial guidelines

Globorise's eAPA is supported by our extensive experience and knowledge base in the oil and gas, refining and petrochemical industries; our people and our systems.

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Other Technology Capabilities

procesSVision® HACCP Enterprise Managing PSM effectively...

Module: MOCS

(Management of Change System)

It manages various types of MOCs in the organization Following the defined approval cycle, the modules ensures all the necessary aspects (including documents) are fulfilled before it proceed to the next approval cycle. It is a SharePoint based technology that creates and manages the documentation structure. It keeps track of all the MOCs in the system. Alerts can be set to remind in case of any delays.

Module: EPS

(Electronic Procedure System)

It manages the site policies, manuals, procedures and instructions that manages online updates, automatic roll-out into training needs. A truly paperless technology that supports creation, review and approval process through an application. It ensures all the process safety related issues are handled properly so as to reduce an operational risk.

Module: DnRS

(Documentation & Rationalization System)

This module helps organization to conduct and record the Alarm system Documentation and Rationalization. This provides a ready reference for the operations to understand any alarm cause and its mitigating action.

Module: CAMS

(Critical Alarm Monitoring System)

This module monitors the process critical alarms and provide with a mitigation plan for a downgraded scenario. This module requires A&E OPC connection to DCS

Module: eOperWin

(Safety, Design and Operating limits monitoring system)

It is an online (OPC connectivity required) module that monitors the process parameters for violation of it Integrity, Safety, Design and Operating window and alerts of an downgrade scenario to the operator.

Module: OperWin

(Safety, Design and Operating limits monitoring system)

It is an online (OPC connectivity required) module that monitors the process parameters for violation of its Integrity, Safety, Design and Operating window and alerts of a downgrade scenario to the operator.

Module: PHA

(Process Hazard Analysis System)

It allows organization to conduct and record the HAZOP and LOPA analysis and allows to maintain a draft version and upon approved and released, is available as a live document.

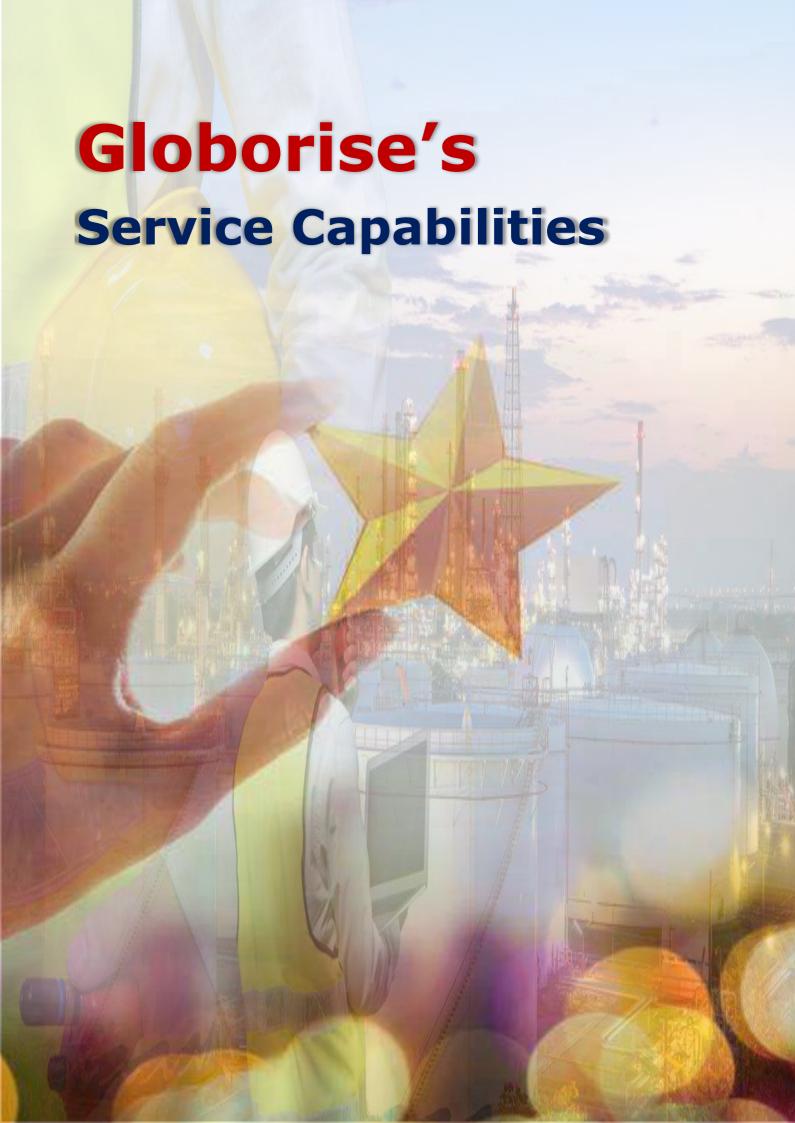


Module: SafeTutor

(Process Safety Training Framework)

It manages the training needs and tracks the record for each employee for a competency gap. An alert system and the dashboard makes it easier for the plant training coordinators to manage the training needs.

Contact our local representative or email us at sales@globorise.com to get more information.



Globorise's services Your partner in PROCESS SAFETY

Alarm Management System Implementation

Our on-site services include, authoring an Alarm Philosophy Document, implementing Alarm management software, setting up the KPI reporting system, performing Documentation & Rationalization, implementing critical alarm management system, system audits and training.

Implementing PSI documentation system

We will identify the relevant PSI documents for your site and set-up an online intranet portal to make it available to all. We also undertake P&ID and other PSI document updating.

PHA

We have a team of certified PHA leaders who have chaired HAZOP at some of the largest process plants in the world. We do conduct plant-wide HAZOP and LOPA analysis using any third party PHA software or Globorise's PHA module

PSM Audits

We conduct PSM audits and do the gap analysis.

Advanced Process Control

We have the world's best APC implementers for polymer plants as well as for Olefins and upstream processes. We are official implementers for AspenTech technologies with capabilities to implement Honeywell and Rockwell technology as well.

Control System Audit and Tuning

We undertake task to audit your PID controller performance and tune them, if required, to keep your plant operations better controlled.

Digitization roll-out

We consider digitization as an ENABLER. Our team can audit the site and identify the potential for digitization projects. These projects would include designing and implementing process monitoring, handling downgrade scenarios with proper monitoring of the involved risks and proposing a mitigating plan. We help you implement the failure prediction models using big data analysis.

Process Safety an Advanced Control Training

Our subject matter experts have conducted several trainings related to the Process Safety, Instrumentation and Control and Advanced Process Control. We conduct on-site as well as public courses.

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procesSVision®

An enterprise process safety platform