

ASSET SAFETY AND COMPLIANCE

KEEPING PEOPLE, ASSETS, AND THE ENVIRONMENT SAFE

With integrated solutions from SAP, you can align stakeholders, increase operational visibility, and establish consistent, best practices-based processes for managing safety and compliance across the enterprise. Now you can proactively keep people, assets, and the environment safe.



Operational risks within asset-intensive companies are getting more attention these days – and for good reason. Culturally and politically, governments and citizens are demanding that companies make strides toward sustainable, safe operations. Corporate spending related to regulations and compliance is at an all-time high – and it's expected to increase as companies face an ever-growing list of regulations that impact day-to-day operations. Should your business fail to comply, penalties are higher than ever.

Failing to proactively manage asset and safety risks is also a serious threat to corporate performance. It makes your enterprise more susceptible to catastrophic failures and operational risks that lead to production downtime (which directly impacts your bottom line), lost brand value and market confidence, and undesirable legal and financial outcomes. Lack of cohesive safety and compliance management leads to:

- Poor visibility and a reactive, rather than proactive, approach to safety and risk management
- Ineffective employee education, delays in employee certification, and inconsistent processes across the enterprise
- Delayed recognition of warning signs of abnormal operations
- Outdated procedures and poor knowledge transfer when procedures are updated
- Poor engineering and lack of company-wide prevention of incidents and exposures
- A false sense of security across the enterprise

The fact is, if you can make your people and factories safer, your company will perform better over the long term. The challenge is maintaining your assets in a way that aligns with your organization's risk tolerance and stakeholder priorities, helps you achieve business performance targets, and controls compliance costs. SAP® solutions can help you operate in a cleaner, safer way – and still perform optimally – by aligning stakeholder objectives across the enterprise and enabling integrated asset safety and compliance.

Consistent, Reliable Safety and Compliance Management

With integrated solutions from SAP, now you can align key stakeholders, increase operational visibility, and establish consistent, best practices-based processes for managing safety and compliance. Our integrated operational risk management solutions bring together safety, compliance, and performance monitoring with reporting functionality and operational management controls, enabling proactive, reliable safety and compliance management.

Deployed together, solutions from SAP help you to:

- Meet all external and internal environment, health, and safety (EHS) requirements and prevent serious incidents
- Gain visibility into the status of EHS risks and performance
- Proactively manage regulatory compliance
- Efficiently manage greenhouse gas (GHG) emissions and other emissions and energy usage

- Execute a health and safety program and enforce compliance with policies globally
- Facilitate safe operations through cost-effective, reliable maintenance

Keep Stakeholders Informed and Involved

One of the challenges to driving safety and compliance across the enterprise is aligning key stakeholders responsible for daily operations. Without this alignment, how can you be confident that safety and compliance standards and processes are being executed consistently? Without integrated enterprise processes, how can you gain visibility into the status of EHS risks and performance to head off accidents and incidents – or achieve transparency into local data, key performance indicators, and local EHS activities?

If you can make your people and factories safer, your company will perform better over the long term.

Integrated solutions from SAP consolidate information and processes on a scalable, flexible platform that empowers stakeholders to anticipate and avoid incidents that could harm people, assets, and the environment. With solutions that help align and involve key stakeholders and provide the enterprise-level visibility and control to proactively address operational risks, your managers can make informed asset and safety decisions and respond swiftly to threats. The software supports:

- Closed-loop risk management, including risk mitigation and prevention
- Auditable business processes and audit management that meets the ISO 19011 standard
- Visibility into operational performance metrics, complete with drill-downs into specific data

Once deployed, these solutions enable you to reduce the cost of compliance and save time and money that would otherwise be spent on ad hoc activities, or so-called “firefighting.” You can also monitor compliance with internal and external standards to minimize risk.

Keep the Environment Safe

To avoid or reduce emissions, meet green energy goals, and prevent negative brand image exposure, you need to run business operations in accordance with environmental laws and company policies. But executing on these priorities can be extremely challenging for today’s companies. Without the right software and automation in place, the cost and sheer complexity of complying with a multiplicity of regulations – for example, state, federal, and international standards that may change frequently – can be overwhelming. Many companies find it a huge struggle to fulfill regulatory requirements – partly because they lack an early warning system for deviations and critical issue identification.

Integrated solutions from SAP help you keep the environment safe by providing the transparency and support for enterprise-wide compliance with environmental laws and internal policies. The applications integrate tightly with the operations control data contained

in your third-party and SAP software and measure your compliance with applicable environmental laws, company policies, and emissions and resource usage targets in real time. You can also set up consistent, auditable, transparent, and automated business processes that enable you to:

- Manage permits, licenses, and requirements
- Monitor and inventory emissions as well as GHG credits
- Predefine and manage handling of flexible early warnings and alerts
- Centrally manage incidents and emissions across departments
- Quickly generate accurate, up-to-date, internal and external reporting
- Have sound data as a basis for trading with emissions certificates

Once deployed, SAP solutions can help you improve safety and compliance processes so you can minimize the risk of incidents and fines. At the same time, you can lower energy costs and reduce workloads in ways that shrink compliance costs. And finally, by enabling you to proactively manage emissions, the software helps you create additional revenue streams by selling unused (or free) capacities of emissions certificates.

Keep People Safe

Establishing an effective health, safety, and certification program that facilitates global compliance with policies and guidelines can be extremely challenging. The root cause of trouble is often poor process integration and weak process controls. These conditions increase the risk of noncompliance by managers and workers and lead to a higher likelihood

of dangerous events. And should an event occur, companies also need a way to manage the details for every employee impacted by it.

Integrated solutions from SAP address these challenges by supporting closed-loop processes for managing risk and exposure assessments, standard operating procedures (SOPs), safety measures, certificates, health surveil-

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lance, and incidents. The software enables you to manage industrial hygiene and safety (IHS) activities, including risk assessments and the creation of incident and accident logs and exposure profiles. You can also:

- Manage occupational health, including automatic assignment of health surveillance protocols based on person-specific exposure situations
- Establish automatically generated SOPs for safe handling of hazardous substances
- Execute and manage safety courses, briefings, and certificates
- Ensure worker safety by enabling automatic creation of “internal permits” for

work activities and the effective use of lock-out and tag-out procedures

- Streamline collaboration between IHS professionals, first aid staff, asset management professionals, the HR department, medical professionals, and external authorities

Once deployed, these solutions help you proactively ensure the health of all employees and contractors, allowing you to create an environment where incidents aren't likely to occur. Now you can streamline processes for a more effective assessment of your operational locations for hazards and potential sources of risk. At the same time, should a dangerous event occur, you can guarantee that each worker is covered by the necessary healthcare and surveillance protocols, as well as training to avoid future risks.

Keep Assets Safe

By ensuring safe operations, you can avoid harmful incidents, improve asset productivity, and ultimately reduce risks to company performance. But this requires that you have the visibility, controls, and integrated processes in place to help ensure proper asset maintenance and operations across all locations. SAP delivers integrated functionality for enterprise asset management that enables you to create, adapt, and drive the execution of maintenance plans and standard work processes and in turn minimize asset risks and increase asset reliability. The software integrates with other SAP and non-SAP solutions to support:

- Maintenance management, including preventive and predictive maintenance,

maintenance planning and scheduling, work order management, and mobile asset management

- Asset information management, including document management and technical asset management
- Reliability-based maintenance strategy management, enabling you to proactively identify critical assets and failure modes, evaluate risks, and develop and execute maintenance strategies that take failure effects and risks into consideration
- Work clearance management so you can perform lock-outs, tag-outs, and work permit management when activities such as maintenance must take place during ongoing operation

Once deployed, these solutions enable you to manage all phases of the asset lifecycle from a safety perspective while balancing performance, risk, and cost variables to achieve maintenance excellence. At the same time, you can achieve new process efficiencies and cost savings, while gaining transparency into safety risks and measures, maintenance activities, and more.

Software and Services for Asset Safety and Compliance

Integrated software and services from SAP and our partners can provide you with the functionality needed to enable comprehensive safety and asset management. For more information about these solutions, contact your SAP representative or visit us on the Web at <http://www.sap.com/solutions/executiveview/manufacturing/asset-safety-and-compliance/index.epx>.

Summary

SAP® solutions can help you operate in a cleaner, safer way – and still perform optimally – by aligning stakeholder objectives across the enterprise and supporting integrated asset safety and compliance.

Business Challenges

- Lack of cohesive safety and compliance visibility
- Increasing industry regulations and higher fines for safety violations
- Fragmented approach to safety and asset management that limits visibility, control, and effectiveness

Key Features

- **Governance** – Enable monitoring and controls and automatically generate audit trails for compliance and proactive legislation management
- **Planning** – Align design and engineering with key risks and process hazards; set up and manage emergency operation planning
- **Execution** – Implement procedures, processes, and training to reduce risks and costs; optimize maintenance strategies
- **Monitoring** – Increase awareness of potential hazards, proactively address abnormal operations, and take preventive measures
- **Optimization** – Implement standardized, auditable, and transparent processes; perform risk analysis and performance measurement; drive continuous safety improvement
- **Integration** – Process and share safety information internally and externally; define integrated, lean processes; reduce manual efforts

Business Benefits

- **Reduced operating and management costs** through process monitoring and increased visibility
- **Increased efficiencies** via optimization of processes and integration across the enterprise
- **Increased visibility and performance** enabled by proactive monitoring of people, projects, and processes
- **Reduced maintenance costs** via streamlined maintenance processes and alignment with production metrics
- **Reduced asset capital investments** due to improved asset performance achieved through greater asset reliability

For More Information

Call your SAP representative or visit us online at <http://www.sap.com/solutions/executiveview/manufacturing/asset-safety-and-compliance/index.epx>.

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