

SAP® ENVIRONMENTAL COMPLIANCE

AN ENTERPRISE SOLUTION FOR ENVIRONMENTAL COMPLIANCE

More than ever, environmental compliance is essential to success in business. The SAP® Environmental Compliance application helps turn regulatory complexities to your competitive advantage by facilitating compliance management – reducing time, effort, and nonconformance risks at plant and corporate levels.

Facing Regulatory Challenges and Enterprise Realities

Do the numbers. In the oil and gas, chemicals, utilities, or pharmaceutical industries, a typical manufacturing plant may have to fulfill close to 50,000 requirements for reporting compliance with air, water, and waste regulations. If your enterprise is not in compliance, you may risk millions of dollars in fines and loss of production. Still, every year the complexity of the regulatory framework grows, the number of deviation events increases, and violations become more costly.

If you operate globally, it's especially critical for you to stay current with the growing maze of local, regional, national, and worldwide environmental regulations for all the locations where you do business. And as environmental issues become increasingly prominent, companies strive for compliance not only to meet requirements but also to maintain and enhance a good corporate image.

Challenges also exist inside your enterprise. You may lack consistent, auditable, and transparent business processes. Data collection and reporting methods may be time consuming and may produce inaccurate information. You may have difficulty staying current with changes in global regulatory laws and policies, or keeping your compliance processes synchronized to new mergers, acquisitions, or market shifts.

Indeed, today's compliance and environmental managers frequently cope with the shortcomings of heterogeneous IT landscapes and homegrown solutions. A lack of integration in data, applications, and processes can pose a serious threat both to visibility and to accessing critical, timely information. The result: data-quality inadequacies, missed deadlines, and tracking deficiencies can generate a high risk of noncompliance exposure for plant or enterprise-wide operational performance and can create nightmares for managers at all levels.

Integration via Web Services with SAP NetWeaver®

The SAP® Environmental Compliance application helps you confront these challenges by integrating data and processes seamlessly. It automates compliance process management and updates, and delivers process transparency to your compliance managers' desktops.

Underlying SAP Environmental Compliance is an enterprise service-oriented architecture (enterprise SOA) that is powered by the SAP NetWeaver® technology platform. This lets enterprises compose and enhance business applications rapidly, using Web services or enterprise services.



Achieving Comprehensive Compliance

SAP Environmental Compliance covers the full range of enterprise compliance needs, from plant-permit management to emission inventory and reporting to exception reporting, prevention planning, and incident tracking. It supports the full range of business processes needed for compliance, as follows:

- Facilities compliance
Manage data and tasks for facilities compliance and handle permit requirements and environmental reporting. Manage compliance tasks related to hazardous and nonhazardous waste regulations – for example, storage area inspections. Model emissions from waste storage containers.
- Emissions management
Control, track, measure, and document emissions, and align business processes to comply with environmental regulations. Compare calculated emissions to government-set numeric limits to stay in compliance. Receive warning or deviation e-mail notifications if limits are compromised. Generate emissions inventory reports

Optimizing Your Environmental-Compliance Performance

SAP Environmental Compliance gives users (for example, compliance managers, environmental engineers, and corporate environmental managers) the tools and functions they need to make the best use of their time. It also helps them maximize the company's environmental performance in the following ways.

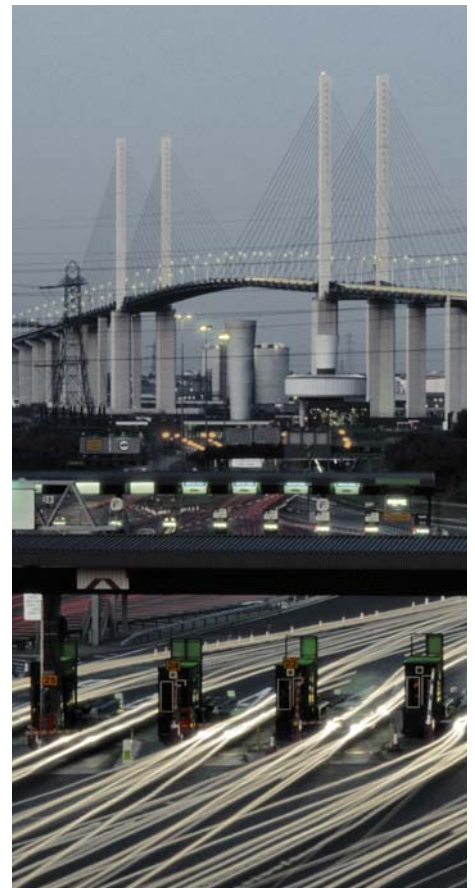
Data Monitoring and Reporting

An intuitive and Web-enabled user interface benefits even infrequent users. Its built-in data verification and approval workflow ensures the trustworthiness of data for decision making. For data monitoring, SAP Environmental Compliance provides limit checks, automated detection of deviations, and triggering of dedicated exception management processes to maximize data quality. Standard regulatory report templates and forms, easy-to-execute ad hoc reports, condensed management reports, and form-based electronic reporting to authorities serve to simplify reporting processes.

Task and Workflow Management

A sophisticated task and workflow management engine helps manage processes, data submissions, and scheduled activities. Individuals and user groups can work with personalized task lists to execute and complete assigned work issues. Notifications about upcoming activities or escalations are sent automatically via e-mail. Individuals get an intuitive Web interface that

You can track data and process-based compliance manually or automatically all the way down to the equipment level. And you get immediate, automated detection of deviations and the triggering of defined countermeasures.



The software delivers transparent, closed-loop compliance management on all enterprise levels. It helps you run your operations efficiently and improve performance while relieving stress on you, your managers, and your IT staff.

simplifies user access to controls and reports, and helps them collaborate between business units and across the enterprise.

Event and Exceptions Tracking

SAP Environmental Compliance supports event-driven processes – helping team members respond to an environmental incident, such as a spill of hazardous material or limit deviation, by mapping and delivering defined

prevention plans. Flexible exception management supports fast detection of noncompliant events such as limit deviations, missed deadlines, or non-conforming inspection items. Functions like these help team members maintain safety and remain in compliance while minimizing financial and operational risks.

Compliance Definition and Verification

SAP Environmental Compliance provides content and services to keep your compliance processes up-to-date with regulatory changes. The application contains data for standard equipment types, sample equations and factors used for calculations, and generic report templates for common administrative reports. More comprehensive content packages – for example, for region-specific or industry-applicable regulations and requirements – are available from content providers. These packages include specific calculations, mathematical factors, materials, and report templates for regulations such as those required by Title V of the Clean Air Act and the European Pollutants Release and Transfer Register.

Data and Process Integration

A key requirement for compliance processes, data and process integration helps heterogeneous IT landscapes deliver the full range of data required for environmental business processes. SAP Environmental Compliance integrates with enterprise resource planning (ERP) software and operation control systems to extend environmental compliance performance and accuracy across the enterprise.

Why SAP Environmental Compliance?

SAP Environmental Compliance helps you design, monitor, and improve your environmental compliance processes no matter how complex your plant – or enterprise – may be. It delivers transparent, closed-loop compliance management on all enterprise levels. It helps you run your operations efficiently and improve performance while relieving stress on you, your managers, and your IT staff in these key ways.

The software supports standardized, transparent compliance processes to improve operational efficiency:

- A single management platform simplifies environmental compliance business processes required in the air, water, and waste domains.
- A complete set of tools and functions helps standardize processes for collecting, validating, monitoring, and reporting data and process results.
- The flexible reporting engine provides ad hoc views of important business data and automatically populates regulatory report templates with facility data.

SAP Environmental Compliance enables proactive tracking and detection of key data, thus reducing risk:

- Automated and manual tracking of data, as well as process-based compliance procedures, supports checks all the way down to the equipment level.
- Immediate, automated detection of deviations triggers defined countermeasures and generates complete audit trails.

The SAP Environmental Compliance application helps you integrate data and processes seamlessly, automates compliance process management and updates, and delivers process transparency to your compliance managers' desktops.

With data and process integration, you can enhance the reliability of your environmental business processes:

- An intuitive Web interface simplifies user access to controls and reports, and helps workers collaborate between business units and across the enterprise.
- Integration with ERP software and process control systems helps automate processes and improves the quality of results.
- Web services and enterprise services maximize data exchange efficiency.

Summary

Environmental compliance is essential for business success, and its regulations grow increasingly numerous and complex each year. The SAP® Environmental Compliance application helps you keep compliance processes current so you can avoid the risks of fines and lost production at the plant and the corporate level.

Challenges

- Establish consistent, auditable, and transparent business processes
- Simplify data collection, monitoring, and reporting methods
- Keep compliance processes synchronized with new mergers, acquisitions, or market shifts
- Avoid noncompliance risks of fines and lost production

Supported Business Processes and Software Functions

- Data monitoring – Set limit checks and automate detection of exceptions and deviations to reduce errors
- Regulatory reporting – Use standard regulatory templates and forms and form-based electronic reporting to stay current with regulatory agencies
- Task and workflow management – Handle processes, data submissions, and scheduled activities using a sophisticated task and workflow management engine – complete with personalized task lists and notifications
- Event and exceptions tracking – Coordinate a timely, effective response to an incident using flexible exception management software for mapping and delivering defined prevention plans
- Compliance definition and verification – Keep your compliance processes up-to-date with regulatory changes using the content and services provided

Business Benefits

- **Improve operational efficiency** through standardized, transparent compliance processes
- **Reduce financial and operational risk** through proactive tracking and detection of key data
- **Enhance the reliability of your environmental business processes** with data and process integration

For More Information

To learn more about SAP Environmental Compliance, contact your SAP representative or visit www.sap.com/ehs.

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