

FOR IMMEDIATE RELEASE

ACM Facility Safety Releases SafeGuard Sentinel Safety Software

SafeGuard Sentinel measures and monitors plant conditions, detects safetyrelated issues, alerts operators, and suggests contingency plans.

Calgary, AB, February 12, 2014— ACM Facility Safety releases SafeGuard Sentinel safety monitoring software to continuously measure, monitor and alert operations and management to process safety risks. The software also delivers contingency plans that can be executed immediately to address issues and reduce risk. By presenting real-time risk information and expert knowledge to make effective operational decisions, SafeGuard Sentinel helps prevent safety incidents, environmental infractions and downtime.

SafeGuard Sentinel enables plants to reduce risk and identify critical safeguards during operation. It also provides information on which to base strategic decisions, including safety performance indicators that can be easily used at all levels of the enterprise up to the Board of Directors level.

SafeGuard Sentinel runs on a Windows-based server in a plant network, and can be accessed by any device capable of running a browser, including DCS workstations, operator terminals, tablets and smartphones.

The SafeGuard Sentinel server connects through OPC and ODBC interfaces, allowing it to gather information from a variety of systems including DCSes, PLCs and PACs from all major control system suppliers. Other sources of data typically include safety systems, historians, SCADA systems, maintenance systems, operator logbooks and workflow tracking systems.

Depending on the network setup, SafeGuard Sentinel can be hosted in the plant DMZ, which allows access at a business level. SafeGuard Sentinel only needs one-way communication from the various systems to gather data, thus preserving plant security.

SafeGuard Sentinel integrates data from these various systems to create an all-inclusive database of information including Hazard and Operability (HAZOP) Studies and Layer of Protection Analysis (LOPA). SafeGuard Sentinel uses this information to provide situational analysis and contingency plans for process safety situations.

In real-time, SafeGuard Sentinel monitors plant conditions, detects unsafe conditions, and alerts operators. SafeGuard Sentinel also captures risk events and operator actions for immediate visualization and future analysis.

By comparing the real-time measured risk level with the designed level of risk, SafeGuard Sentinel provides quantitative, leading metrics showing changes in risk over time. Management can use SafeGuard Sentinel to see how process risk is changing, and can benchmark safety performance across process units or entire plants. Drawing upon information from sources such as maintenance and training records, SafeGuard Sentinel reveals risks that would normally be undetected.

Bowtie Displays

SafeGuard Sentinel provides "Bowtie Displays" which convert pages of HAZOP data into a single, powerful, and easy to understand graphical visualization. This helps operators understand the full scope of each potential risk, and see the impact of each safeguard. All risks and mitigations are shown on bowtie visualizations which include:

- Hazardous events
- Root causes
- Consequences
- Preventative safeguards
- Mitigative safeguards
- Contingencies for safeguard failure

For more information on SafeGuard Sentinel, please visit: www.safeguardsentinel.com

About ACM Facility Safety

ACM Facility Safety is Canada's largest independent provider of Hazard Analysis, Safeguard and Risk Assessment services. ACM has helped the world's largest operating and engineering companies improve facility uptime, manage process risk, and comply with international safety standards.

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