

# KENEXIS ONLINE™

Process plants employ engineered safeguards to reduce risk to tolerable levels. These safeguards include safety instrumented systems (SIS), fire and gas systems, alarm systems, emergency isolation valves, and pressure relief system. Ensuring the mechanical integrity of these systems throughout their entire lifecycle is a mission critical task that can impact safety, operability, regulatory compliance, and the bottom line.

Engineered safeguard design is a complex process that combines risk analysis, reliability calculations, and equipment engineering. This requires sophisticated tools to not only establish the initial design, but also to track the design throughout all of the phases of the lifecycle – including operations and maintenance, and management of change. Lifecycle management requires the collection of all of the documentation and calculation tools in one location, where it is accessible to all users that need the information – evergreen, and in real time.

The screenshot displays the Kenexis Online software interface. The top navigation bar includes 'Home', 'Studies', and 'Help'. Below this, there are tabs for 'Administration', 'Plant', 'IPF', 'SIL Selection', 'SIL Verification', 'SRS', 'SIS MTTFs', and 'Recommendations'. The main content area is titled 'SIS Design Basis Toolkit™:' and contains several sections: 'General' (Facility Information), 'Team Members', 'Sessions', 'Attendance', 'Drawings', and 'Project Report Information'. The 'Facility Information' section includes fields for Company (General Oil and Gas Company), Location (Chemical City), Unit (Gas Production Facility), Street Address (61511 Standard Road), City/State/Zip (Chemical City, Texas 77000), and Client Contact (Scarlet A. Gray). The 'Project Report Information' section includes Report Release Date (31 May 2010), Project ID (900.001), Report Index Number (01), SIL Selection Procedure (General Oil and Gas Company, SIL Selection Procedure Rev. 1, Dated 01 Jan 2008), Project Manager (EM Marszal), Lead Engineer (KS Exis), and Toolkit Version (5.00). The 'Project Background Information' section includes SIS Design Basis Study for the Gas Production Facility.

**KENEXIS ONLINE™** is the optimal solution for engineered safeguard design basis lifecycle management. Kenexis Online is the same tool that is used by the experts at Kenexis internally to perform all of its design basis engineering and risk analysis studies. The tool combines risk study documentation, reliability engineering calculations, and engineered safeguard design specifications into a single location. Using a software as a service architecture, the data becomes available to all necessary users in real time, while retaining a close connection to Kenexis experts for support.

## KENEXIS ONLINE Modules:

- Safety Instrumented Systems (SIS) Design Basis
- Fire and Gas Systems (F&G) Design Basis
- Alarm Systems Design Basis
- Pressure Relief System Design Basis
- Emergency Isolation Valve Design Basis
- Control Network Safety/Security Design Basis
- LOPA (Stand Alone)
- PHA (HAZOP)





***KENEXIS ONLINE™** is the premier toolkit for lifecycle management of engineered safeguards.*

### ✓ **Comprehensive Toolset**

Kenexis Online™ provides the most comprehensive toolkit in the industry. Modules are available for design and lifecycle management of virtually all engineered safeguards encountered in the process industries. The toolkits cover the entire lifecycle ranging from risk studies that establish performance requirements, quantitative analysis to verify requirements are achieved, and specification of system parameters.

### ✓ **Leverage Existing Information**

Existing Kenexis customers have already had much engineered safeguard design basis information developed by Kenexis, or other engineering contractors. Existing Kenexis studies can be directly uploaded to Kenexis Online™ with little or no modification, allowing nearly immediate access for viewing and modification. In addition, Kenexis can convert studies performed by other organizations into the Kenexis Toolkit formats, allowing for subsequent design basis documentation lifecycle management.

### ✓ **Access to Expertise**

A major benefit of Kenexis Online™ that is not available from other software applications for performing engineered safeguard design is access to the experts in Kenexis, usually the same engineers that performed your original Kenexis design basis study. Due to the unique structure of Kenexis Online, engineers at Kenexis can also access design basis documents on request. As a result, Kenexis is available to support your internal processes to whatever degree is desired. This can range from simple review of work done by your organization all the way to completely outsourcing all of an SIS design modification project. You can choose what level of Kenexis support is appropriate for your project, and only obtain what you need.

### ✓ **Multi-Site / Multi-User**

The structure of Kenexis Online™ as Software-as-a-Service instead of traditional desktop software allows real-time access to lifecycle management information by multiple users at multiple sites across an organization. This structure allows all stakeholders to have the relevant information at their fingertips when the situation demands it. Whether that is engineering evaluating the impact of switching instrument types, HSE considering the impact of changes in risk levels, or operations preparing bypass management documentation. This structure also allows central experts to assist in the lifecycle management of geographically distributed operations.

### ✓ **Comprehensive Support**

Kenexis Online™ comes with a comprehensive support package. This support includes both application support and engineering support. Application support is complimentary over the entire duration of a contract and includes all issues related to access of the software and operation of the software platform. Engineering support is available in either pre-paid blocks of time, or is also available on an ad-hoc basis. Customer support is available either by phone or through the support page of the Kenexis web site.

## **Kenexis Consulting Corporation**

2929 Kenny Road, Suite 225

Columbus, OH 43221

Phone: (614) 451-7031 Fax: (614) 451-2643

[WWW.KENEXIS.COM](http://WWW.KENEXIS.COM)