

Risk engineering services for the energy industry

Zurich Services Corporation recognizes that risk engineering services have a direct impact on your business—your profitability, your property and other assets, the health and safety of your employees and customers, and much more. Because our services permeate so many critical aspects of your business, we've taken great care to ensure they're focused on results. The most important action we've taken to get those results is to hire experienced professionals from the energy industry to work with you. Our energy industry risk engineering consultants have first-hand experience working from within your industry, giving them a deeper understanding of your risks and what can be done to address them. In addition to our energy industry experience are our four key building blocks of service:

- **Approach**, which is to act as both student and teacher, learning about your individual organization in order to choose the right solutions and then sharing our risk management knowledge to help you become more self-sufficient in controlling your risks
 - **Specialist** risk engineering consultants, who are highly experienced and trained technical professionals, dedicated to the industries they serve and, in many cases, hired from within your industry
 - **Information**, which reflects our constant drive to find ways to simplify and reduce the cost of managing risk for our customers through automation
 - **Network**, which spans 30 countries and includes over 1,000 risk professionals, giving you access to the largest network of technical risk management in the world, so we're ready to go wherever you grow
- ## Ergonomics
- Our Certified Industrial Ergonomists (CIE) offer a comprehensive evaluation of the risk factors associated with your workstations. After the evaluation, they offer recommendations to correct and control those risk factors. The results from these recommendations can significantly improve the safety of a workplace, reduce potential accident costs and increase productivity.
- ## Equipment testing program – jurisdictional boiler and pressure vessel inspections
- Our equipment-testing programs help you stay in compliance with jurisdictional inspection requirements while helping to prevent costly equipment breakdowns and other types of potential losses. Our equipment testing program includes the following elements:
- Infrared thermographic evaluations detect electrical problems before a breakdown occurs. We can perform this widely used engineering technique while your electrical equipment is in operation so that service is not interrupted.
 - Vibration analysis can detect problems that could lead to failure of critical plant equipment. This allows you to repair equipment before any breakdown of critical plant equipment, preventing costly extended plant outages.
 - Lube oil analysis helps us detect progressive deterioration of the lubricated components of a machine, such as bearings. By examining particles contained in the lubricant, we can determine if there is an abnormal wear-related problem. If we find problems, we can recommend corrective actions to help prevent the failure of a motor or cable that could cause a potential extended plant outage.

- Insulation resistance and corrective action to prevent extended plant outages.

Industrial hygiene services

Our industrial hygiene services help you comply with regulatory requirements and maintain a healthful work environment for your employees. Our experienced Certified Industrial Hygienists (CIHs) can help you identify and assess potential sources of employee exposure to hazards including carbon monoxide, silica, noise, acids, metal fumes (including hexavalent chromium) and toxic gases and vapors. We can also help you establish or audit your current programs for respiratory protection, silica, hazard communication and hearing conservation. At your request, we can even train your employees on how to collect samples, take measurements and conduct basic industrial hygiene surveys.

Absence management

Zurich's absence management program is a customizable, end-to-end process with pre-injury, injury management and return-to-work solutions designed to help you take control of employee absence and disability costs. Typical program services include developing a physician network, creating transitional work assignments and job descriptions and developing a return to work program.

Customized safety videos

Our customized safety videos help you address safety topics that are truly relevant to your operation because they are filmed on your location with your employees performing your day-to-day operations. By videotaping on your site, we can zero in on specific exposures, facilities, procedures and equipment that are potential loss producers. You can also use these

videos for new employee safety training, OSHA-specific safety training or simply to address a specific safety topic consistently across all your locations. Our energy customers have found results from customized videos to be far superior in getting their safety messages across to their employees. Probably the main reason for this is that employees pay closer attention to them than off-the-shelf videos, resulting in the kind of deeper understanding that leads to behavior change.

Six Sigma and 5S lean manufacturing

Our Six Sigma and 5S Lean manufacturing services teach you how to incorporate the principles and techniques of these programs into your business culture. We provide project consultations and regional workshops or, upon request, we can conduct a workshop at your facility. Our hands-on curriculum combines lectures, videos and small working groups to create an optimal environment for learning how to apply the Six Sigma process and 5S Lean principles into your operations.

Fleet services

Zurich Services Corporation has a worldwide network of fleet specialists with roots deep in the transportation industry. We offer our energy industry customers a wide assortment of tools and training to help you in critical areas of controlling your fleet exposure, such as tools to identify poor drivers and the subsequent training to help all drivers improve their skills.

For more information about Zurich Services Corporation's risk engineering services for the energy industry, contact your Zurich representative or visit www.risk-engineering.com.

Zurich Services Corporation

1400 American Lane, Schaumburg, Illinois 60196-1056
800 982 5964 www.zurichservices.com

Zurich Services Corporation
Risk Engineering



ISO 9001:2000

Quality-Assured Solutions Provider

The information in this publication was compiled by Zurich Services Corporation from sources believed to be reliable. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with this publication, including any information, methods or safety suggestions contained herein. Moreover, Zurich Services Corporation reminds you that this publication cannot be assumed to contain every acceptable safety and compliance procedure or that additional procedures might not be appropriate under the circumstances. The subject matter of this publication is not tied to any specific insurance product nor will adopting these procedures insure coverage under any insurance policy.

©2008 Zurich Services Corporation

Because change happenzSM



ZURICH[®]