For applications from nuclear power plants and offshore rigs to wind powered turbines, the energy industry’s standard of excellence in fall protection is Flexible Lifeline Systems. What FLS means for your business is access to the best products and the leading experts when it comes to the specific fall risks faced by Power Industry workers. FLS delivers worry-free systems with turnkey service. From design through implementation, *FLS Works!*™

Every fall arrest system application is unique. Our comprehensive range of products are up to the most challenging environments. FLS offers custom design service that ensures that worker safety at height can be protected in any situation. Our awareness of fabrication and construction techniques – in concert with our specialized knowledge of fall arrest systems – ideally positions us to develop ideas from the earliest design and planning stages through long-term operation and maintenance. FLS is the total turnkey provider of energy industry fall protection solutions.
“Flexible Lifeline Systems’ Project Management and Lead Installer were professional and efficient.”

Kelly Green – Shell
A TURNKEY PROVIDER

From our first meeting to your system certification, one project manager will have total responsibility and accountability for your project, guiding it every step of the way.

Consultation and Site Assessments
FLS fall protection specialists are uniquely qualified to identify fall hazards at your site and are always available for consultation.

Engineering Site Visit
Upon award of the project, Flexible Lifeline Systems will perform an engineering site visit to obtain site-specific measurements in order to form the basis of the design of the system and for preparation of plans and drawings.

System Design
Our professional engineers will work hand-in-hand with your staff to design systems in accordance with stringent specifications and in compliance with all local and federal regulations.

Fabrication
Our in-house fabrication facility and quality assurance programs ensure strict adherence to procedures, specifications and full material traceability. A Flexible Lifeline System is a quality product.
Installation
FLS offers a full range of installation options – no one-size-fits-all approach for our clients. Again, our engineers consider every aspect of your facility’s size and configuration. The rigorously trained FLS installation team implementing your design will leave you with a system custom-made for your individual needs.

Certification
Your FLS system is certified and comes complete with a *Use, Care and Maintenance Manual*. This comprehensive document contains the design basis, calculations, drawings and technical specifications for your system.

Training
FLS instructors are available to train your staff at your site or at our fully equipped facility in Houston, Texas. From a four-hour Basic Fall Protection Course to our 40-hour Qualified Person Course, FLS will tailor a training program for you.

Service & Cost
FLS provides a full menu of inspection and service options ranging from emergency call-out service to five-year maintenance contracts. Piecemeal competitors can’t compare with FLS’ turnkey costs and services. With a quality system and more productive workers, your bottom line will quickly show that *FLS Works!*™

“The installation of the system went very well and the training was excellent.”

John Rahl - Marathon Oil
Flexible Lifeline Systems’ personnel have extensive experience with safety concerns associated with nuclear power plant maintenance and will develop a system ideal for areas inside the power plants providing unhindered access with 100% fall protection.

Experience

Your workers need to have continual and unfeathered access to all parts of your facility. We recognize the rigorous instruction and oversight your engineers and maintenance personnel undergo to be certified. FLS equipment and systems are designed to stand up to those stringent safety requirements.

Our systems can be installed to facilitate general maintenance for the facility as well as tasks specific to nuclear power plants, providing protection as workers go about daily routines. Applications range from comparatively simple systems for a warehouse roof to multi-faceted systems across complex sites like power stations.

Versatility

Systems can be created that link together and operate horizontally, on inclines, and vertically on towers or ladders. There are overhead systems to protect workers operating above machinery. Also, there are temporary systems, including a freestanding guardrail system, for on/off maintenance jobs or for use where a permanent system cannot be installed.
Working at height is required during the assembly and general maintenance activities of wind towers. FLS is fully involved with safety issues inherent in the wind power industry, bringing our unique expertise to the fall-safety aspects of wind energy facilities.

Complete Protection
FLS fall protection solutions cover the complete wind turbine life cycle including construction, operation and maintenance. Our systems are specifically designed to take into account the structures and the movements associated with them. Our designs incorporate extraordinary versatility into the system providing a safety solution for all user requirements.

Ladder structures within a wind turbine are made from thin lightweight aluminium as opposed to steel. This means that while the ladder is strong enough for climbing, careful consideration should be given to the loads which the ladder may incur in the event of a fall. The advantages of FLS’ Systems are that they are anchored directly to the steel work on the top platform, which is remote from the aluminium ladder. Additionally, our safety systems incorporates a webbing strop to facilitate easy release and rescue in the event of a fall.

Proven Solutions
FLS has worked with major wind turbine manufacturers and has the flexibility to respond to the needs of this cutting edge industry.
Flexible Lifeline Systems offers a turnkey solution to your pipe rack fall hazards. From a single access point to complete pass-through systems of more than 1000 feet, your workers will be protected as they go about their daily maintenance and inspection activities.

**Unlimited Scope**

The miles of piping and pipe racks associated with the petrochemical industry expose refinery workers to fall hazards when adequate fall protection is not in place. Oil and gas refineries are in need of constant repair, maintenance, painting, and pipe re-routing. Most of this work is done at heights, with few or no structural elements overhead from which to install fall protection. Some sections of pipe rack may expose workers to a fall hazard during maintenance, and yet, these same sections of pipe might be visited once every ten years. As someone concerned with safety for an oil and gas refinery, how do you balance OSHA compliance and protection of maintenance personnel with the need to provide cost effective fall protection covering an enormous length of exposed pipe?

The Fall Protection Systems we develop are designed keeping in mind all these variables. Additionally, we never lose site of user-friendliness as a major consideration to enable free access, while ensuring safety compliance.
Comprehensive Fall Protection

In addition to pipe racks, FLS will address the fall hazards associated with rail siding, truck tanks, and pits found in refinery settings. FLS engineers will work with you to develop a comprehensive fall protection plan for your refinery. Working together, we will identify and prioritize high risk areas where falls are likely to occur. After this process is complete, FLS will recommend and install OSHA compliant fall protection solutions that will keep your facility, and more importantly, your workers safe.

Applications

Common FLS fall protection installations for the Refinery, Gas, and Petrochemical Applications include:

- Horizontal Lifelines
- Work Platforms
- Catwalks
- Guardrails
- Stair Access Systems
- Permanent Ladders with Vertical Lifelines
- Cross Over Platforms
Flexible Lifeline Systems offers unparalleled support of safety at height in an offshore environment. Our personnel understand a successful offshore system is one your workers use with no hesitation because it keeps them safe without interference.

**Adaptability**

The inherent adaptability of Flexible Lifeline Systems’ designs makes ours the ideal fall arrest system for offshore environments. Systems can be designed and installed to follow the often complex contours of an offshore structure, including horizontal, inclined, and vertical sections for towers and ladders as needed. While offshore, FLS’s attention to quality components and their corresponding ability to withstand even the worst climatic and environmental conditions is particularly important. Our marine grade stainless steel fall arrest systems and hermetically sealed retractable lifelines are ideally suited for the harsh offshore environment. Worker safety is assured because system operations are unaffected by salt, rain, snow, ice or adverse weather.

**Experience**

With our extensive experience in the offshore oil and gas construction industry, Flexible Lifeline Systems can offer productive solutions to your fall hazards in all areas of offshore exploration, construction and production. Flexible Lifeline Systems is your total turnkey provider of innovative offshore fall protection solutions.
“FLS strived to establish a strong, long-term relationship. Their customer service was top notch and all promises were fulfilled. It was a pleasure working with them and I would recommend them.”

Andrew Messieha - Marathon Oil
Dam maintenance and inspections require putting workers in positions with little chance of survival should a fall occur. FLS personnel combine decades of experience with cutting-edge engineering to ensure fall safety for dam workers who perform these functions.

Industry Specific Expertise
Dams are architectural marvels that create a unique set of challenges for worker safety. Built to withstand extraordinary forces and last forever in unforgiving climates, these massive structures require ongoing maintenance and inspections.

FLS Horizontal Lifeline Systems exceed OSHA standards, giving users the confidence of knowing they are protected against the unexpected. FLS takes into consideration the specific circumstances of your particular situation, such as hydro conditions, wind, humidity and temperature variations when determining your facility’s best fall protection solution.

Commitment to Safety
Once a concept has been established and engineered to your facilities specific needs, our in-house fabrication and installation team will complete your project working to the highest energy standards.

FLS maintains an ongoing commitment to your personnel’s safety through regular training and inspections of your safety system.
“Great company! I appreciate all the help and look forward to working with FLS in the future.”

Brian Arbogast - Taylor International
Regardless of the task on the tank, from simple routine inspections to the more extensive tasks such as valve replacements, Flexible Lifeline Systems has designed literally thousands of fall protection systems for a variety of applications.

Floating Roof Tank
Flexible Lifeline Systems’ horizontal lifelines provide multiple users safe access to the entire perimeter of the tank without detaching from the lifeline. The innovative design uses marine grade stainless steel components, eliminates hot work and requires no drilling or tank penetration.

Tank Handrails
The FlexGuard system provides free-standing, non-penetrating handrails around the perimeter of the tanks or from the access ladder to certain points on the tank. Installations requires no drilling or hot work.
“A word of appreciation to Flexible Lifeline Systems for providing a first class fall protection system for our rail maintenance facility. The cooperation extended from office personnel to installers made possible the construction of a facility that will serve ExxonMobil for years to come.”

Ron Broussard - ExxonMobil
“FLS resolved an ongoing safety issue with our refinery catalyst loading dock. Prior equipment designs were not user-friendly and avoided by workers. FLS developed an easy-to-use overhead system that doesn’t hinder personnel. Practical solution for fall protection is what FLS delivers.”

Kim Matherne - Hovensa Refinery
Handrail-Mounted Rigid Rail Inclined System
Many tanks have steep hazardous stairways. FLS provides rigid or cable-based inclined systems to provide fall protection while ascending or descending tank stairs.

Tank Anchor
FLS provides a unique tank anchor which attaches to the center access hatch. The anchor provides 360° fall protection on top of the tank. We also provide solutions for all sizes of pipes and flanges.

Wingrip for Tanks
Wingrip provides a compact, lightweight and flexible fall protection solution that allows maintenance checks to be undertaken quickly and easily. All that is needed is a compressed air or nitrogen supply. The system is a light, easy-to-carry one-man operation.

Wingrip works as a single fall protection anchor point or can be connected in series with a horizontal lifeline to cover an entire tank. Maintenance organizations will appreciate the flexibility of being able to use Wingrip on all tank types as needed.
Flexible Lifeline Systems’ fall arrest systems and service offerings encompasses a complete range of fall protection solutions for the utilities industry.

**Solutions**

As you might expect from the global leader, FLS fall protection solutions are flexible enough to accommodate every safety need for working at height. The comprehensive range of horizontal, vertical and inclined systems, which include Wingrip, is ideal for personnel accessing the horizontal structures of high voltage transmission towers, transformers in substations or wind turbines.

**Design**

The specification process will vary to accommodate the customer’s fall protection requirements. To date, FLS has provided systems for thousands of different tower types and compiled a database of the characteristics of each to provide a quick and accurate reference for future designs.

**Wingrip for Utilities**

Wingrip provides a compact, lightweight and flexible fall protection solution that allows maintenance checks to be undertaken quickly and easily. All that is needed is a compressed air or nitrogen supply. The system is a light, easy-to-carry, one-man operation.
**Why Choose FLS?**

Because **Flexible Lifeline Systems** sets the global standard for fall arrest solutions.

### Unrivaled Experience
- **Focus**
  
  Our sole focus is innovative fall protection systems. We design and engineer fall protection. Period.

- **Experience**
  
  FLS has designed and installed more fall protection systems in more applications and industries than any other fall protection system contractor.

### Industry Best Expertise
- **Professional Engineers**
  
  FLS’ Registered Professional Engineers are highly experienced in the loading characteristics of fall protection systems.

- **Multiple Solutions**
  
  FLS provides multiple proven solutions for each application.

### Innovative Solutions
- **Turnkey Service**
  
  FLS has built its reputation through the self-performance of all phases of fall protection installation including engineering, fabrication, installation, certification and training.
That’s why businesses concerned with safety and productivity know

**Knowledgeable Systems Specialists**

FLS’ Systems Specialists are the most highly trained and knowledgeable sales force in the fall protection industry. Think of your Systems Specialist as your own personal fall protection consultant.

**Quality Assurance**

Our uncompromising QA Team guarantees *FLS Works™* exactly as planned on every installation. We utilize ISO 9001:2000, API Q1, 7th Edition, and ISO/TS 29001:2003 systems which are designed to the highest standards of ongoing quality assurance. Our policy is simple; always meet or exceed our customer’s requirements and the highest recognized industry standards. No exceptions.

**Satisfied Customers**

Our clientele includes a wide range of industrial companies, military organizations, architects, engineers and contractors who come to us, not only for product knowledge, but for design and technical assistance. We pride ourselves on excellence - supplying proven solutions, technical services, and extensive industry experience. *FLS Works!™*