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## Chapter I – System Design

### **1.1 System Description**

Your horizontal fall arrest system has been engineered and designed by a team of professionals to arrest your fall and prevent you from coming in contact with the ground. In the event of a fall, the system will reduce the forces applied to the body to an acceptable level, minimizing the potential for personal injury.

The system consists of a single anchor point, a vertical lifeline, horizontal lifeline, or rigid rail that spans two or more anchorage points. The distance between the anchorage points or the length of the system will vary to as little as 10 ft. to 1500ft. or more. Longer systems will utilize intermediate supports in the design. Systems are normally designed to allow free movement along it's length; allowing the user to pass through the intermediate supports without disconnecting. Horizontal fall arrest systems may consist of stainless-steel cable lifelines or rigid rails. Regardless of the type of system, they are all designed for a maximum number of users and should be used only with the fall arrest devices specified for use with the system.

Fall Arrest Systems must be maintained on a regular basis, inspected often and the user(s) must be trained on how to use the system properly and effectively.

The sub-components on your horizontal fall arrest system will consist of the lifeline (cable or rigid rail) on which will be located the travelling device (transfastener or trolley). Connected to this would be a fixed length shock-absorbing lanyard or a self-retracting lanyard. The free end of the lanyard must be attached to the dorsal "D" ring of a properly fitted full body harness.

### **1.2 O&M Manual**

Your Tritech Fall Arrest System has been designed for your specific application.

Information relative to your system such as:

- Certification of Installation(s)
- Engineering Data
- Number of Users for which the system was designed.
- Component Serial Numbers

can be found in your Operations and Maintenance (O&M) Manual.

Please familiarize yourself with the information contained in this manual. The manual should be stored on site and available for reference and Annual Service Documentation updates.