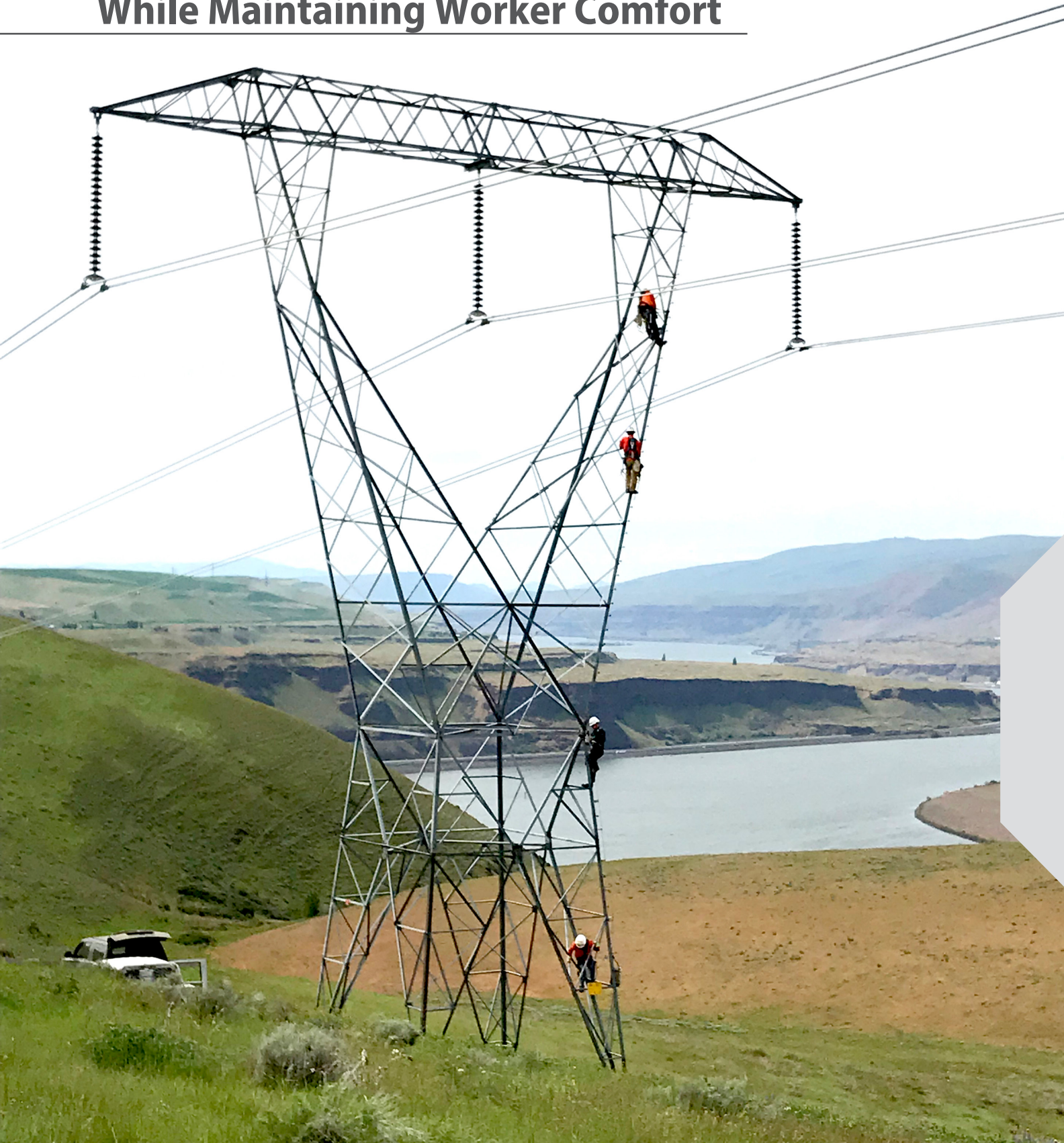


Case Study:
**How a Transmission Company
Met Revised OSHA Standards
While Maintaining Worker Comfort**



WE KNOW WHAT'S AT STAKE.



With an update of the Occupational Safety and Health Administration (OSHA) **29 CFR 1910.269** regulation for electric power generation, transmission, and distribution in the United States that went into effect in 2015, many companies in the utility sector found that they **needed to update their practices in preparation for and while working at height**. OSHA previously allowed “qualified climbers” to climb without the use of personal fall protection and just tie off when they reached their work position on the structure. However, OSHA removed this exemption in the latest regulation, **requiring all climbers to now use 100% tie-off**.



The Challenge

In response to the OSHA changes, a major North American power transmission company implemented a method known as “double skidding,” which involves the use of two separate straps to tie off the user’s full body harness to the structure. Workers would wrap one strap around the structure and “skid” (or slide) upward until they reached an obstruction. Then they would wrap the second strap around the structure above the obstruction and disconnect the first strap. They would repeat this process all the way up the structure. This method, however, became very cumbersome, so the company needed a **solution that allowed for a continuous climb without the need to connect, disconnect, and reconnect around every obstruction**, allowing workers to pass freely through every intermediate connection point along the cable.

In addition, this company was not only moved to change their internal procedures for their employees working at height to eliminate the practice of “free climbing”; they also needed a **partner to supply design services and compliant engineered vertical lifeline systems for their lattice towers and monopoles**.



Selection of the Solution

The company selected **MSA, The Safety Company**, for our unique vertical lifeline TowerLatch SP user attachment device that would resolve their double skidding issue as well as for the broad range of intermediate brackets designed to affix to the structures without the need for drilling the structural members. **The TowerLatch SP device aids in providing a near-free climb experience with smooth device pass-through at intermediate guides**, providing American National Standards Institute and OSHA compliance of 100% tie-off while climbing vertically.

Prior to choosing MSA, the company had quickly eliminated MSA's competitors' systems during the selection process because they used galvanized or plated components, which require manipulation at every intermediate bracket and have a limited lifespan. In contrast, all system components and hardware of the MSA product are **constructed with 316 stainless steel to withstand the harsh weather environment**. What's more, wind tunnel testing ensures **durability against the constant punishment of high winds at greater elevations**.

The company in this case was also looking for experience and a track record that they could verify. The MSA team has a **design base of more than 2,000 relevant structures**, which is growing on a weekly basis. MSA's history as well as the product's extensive application in transmission structures uniquely qualifies us to handle the emerging needs of transmission companies in North America.



Implementation

Throughout the project, MSA engineers have worked closely with our client's structural engineers to ensure that we selected **connection points using steel members on the towers that could support the calculated fall arrest loads**. Once MSA identified the necessary components to mate with each individual piece of the tower bracing, we produced **complete design drawings** for the client.

Then, as each installation along the company's grid went live, MSA provided **on-site training** of the client's own crews as well as contractors. The training included both a classroom-based review of the designs and theory as well as actual field installs during which an MSA engineer climbed towers with the crews to improve understanding on both sides. The field engineer was also able to troubleshoot any last-minute matters that arose..

Finally, after installations were completed, MSA provided **inspection services** to go back and climb the towers to report on the installation and perform any necessary adjustments.



Ongoing Commitment

Installations remain ongoing as we continue to address the company's varying and unique towers from one route to another. MSA has been **working continually with the customer's structural engineering department** to provide design drawings, installation training, and follow-up inspection for each route as it is added to the master schedule.

The client has benefited from MSA's extensive experience and product offerings in becoming compliant with a revised OSHA standard, and they have also found a partner in their ongoing effort to best protect their workers.

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

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