# Purpose

The purpose of this micro-credential is to provide a competency-based evaluation. Earning a micro-credential shows mastery of a skill set and supports professionals in their careers in the wind energy industry.

# Scope

This micro-credential sets the minimum requirements for a tag line handler to demonstrate proficiency in the identification, selection, control, and mitigation of the hazards and risks associated with tag line usage.

# MICRO-CREDENTIAL Taglines

1. **Terminology**
   1. Bight – a loop in a line with a potential running end; high safety hazard.
   2. Bitter end
   3. Equilibrium - A state of rest or balance due to the equal action of opposing forces.
   4. Hand Signals – Same as those specified by 29 CFR 1926 Subpart CC
   5. Hold – Do not let the tagline release from its holding point.
   6. Hoisting - The process of raising and lowering the load.
   7. Inertia – the physical movement of mass
   8. Irregular Load – An irregular load has one or more of the following factors: unusual weight distribution, irregular shape, offset or high center of gravity, unknown lifting points.
   9. Pendulum - A pendulum is a weight suspended from a pivot so that it can swing freely. When a pendulum is displaced sideways from its resting equilibrium position, it is subject to a restoring force due to gravity that will accelerate it back toward the equilibrium position. When released, the restoring force combined with the pendulum’s mass causes it to oscillate about the equilibrium position, swinging back and forth.
   10. Radio signals and voice communication – Verbal communications regarding the load and its control
   11. Rotation – Pivoting of the load around the point of attachment, typically the hook of a crane.
   12. Signal Person – Same definition as specified in 29 CFR 1926 Subpart CC
   13. Slack – While keeping control of the line and the bitter end, do not have tension on the line to induce or retard movement.
   14. Surge – Allowing the tag line to pay out under tension and control
   15. Suspended load – A load lifted off the ground including part of a load
2. **Acronyms**
   1. COG – Center of Gravity – the natural balance point of the load under suspension.
3. **Tagline Usage:**
   1. Prescribed Tag Line Usage
      1. To prove competency, the technician MUST
         * 1. Articulate and demonstrate a basic understanding of prescribed tag line usage and limitations
           2. Articulate hazards with tag lines and the nature of lifts; articulate the hazard of a bight
           3. Demonstrate the various tag line uses and configurations
           4. Articulate the effects of wind on suspended loads – effects of inertia

Rotational effects acting on a load

Crane boom flex, boom swing effects, and the pendulum effect

* + - * 1. Know and understand the types of hand signals used
        2. Exhibit awareness of how much force one person can apply

Demonstrate the ability to position the body in a way that reduces strains, and arm and leg fatigue

* + - * 1. Demonstrate knowledge of when to use and when not to use tag lines
        2. Demonstrate an understanding of the proper use of radios and terminology for communication
        3. Understand personnel positioning

Path of travel is verified.

Obstructions marked and/or removed.

* + - * 1. Demonstrate or articulate knowledge of attachment points, attachment knots and hardware, and potential tagline snag points.
        2. Entanglement hazards and other external hazards
        3. Articulate knowledge of the relationship between tag line length and lift height and the relative amount of control and timing
        4. Articulate and demonstrated proper storage and handling of the entire length of tag line and proper positioning of the tagline relative to the load and the body.

1. **Tag Line Inspection**
   1. To prove competency the technician MUST
      1. Articulate the characteristics of taglines for various loads and handling techniques
      2. Demonstrate the regular inspection procedure
      3. Articulate what conditions would eliminate a tag line from service
   2. If the evaluation was done in the field did the technician perform all the inspections in a thorough and safe manner?
      1. The technician being evaluated MUST
         * 1. Use all required PPE while the inspections were being performed