

“A” Summary of Capabilities for Civil Endorsement

Work on utility property and facilities that is limited to support infrastructure and does not directly involve work on energized equipment or pressurized gas lines. Most civil work represents a broad set of horizontal construction tasks which are not exclusively related to work covered by construction standards.

Work tasks include trenching, shoring, conduits, banks, vaults, concrete and structural steel construction work as well as demolition of the same.

Working conditions often have exposure to hazards not in the scope of work but are adjacent to or integral to the work location or environment. Work adjacent to exposed energized lines and equipment, buried utilities lines and chemical piping require hazard awareness and appropriate controls.

All endorsement summaries represent safety related capabilities which a CUSP may be responsible for within the scope of the endorsement. They are intended to give a snapshot of knowledge, skills and attitudes a CUSP uses to identify and address safety and compliance related strategies for protecting workers and avoiding unintended outcomes.

Capability Name	Relevance to the CUSP	Example of a Supporting Ability
<p>A1 - Excavating, Trenching and Shoring</p> <p>29 CFR, 19926 Subpart P - Excavations</p> <p>American National Standards Institute (ANSI) A10.12, Safety Requirements For Excavation</p>	<p>A general awareness of hazards and risk associated with basic types of subsurface disturbances to ensure workers are conducting excavations safely.</p>	<p>Familiar with the following work practices:</p> <ul style="list-style-type: none"> ● 811 procedures & identifications ● Reading prints and field underground diagrams ● Soil assessment and classification ● Competent person, engineering requirements, designated observer vs. spotter ● Sheeting, shielding & shoring ● Sloping & benching ● Crossings, Beams & Cribbing ● Mechanical excavation vs. hand digging practices ● Spotter/operator communication ● Access and egress ● Contaminated trenches and structures <ul style="list-style-type: none"> ○ Dewatering accumulated water ○ Contaminated soils ● Hydro-vacuum excavation ● Fall protection for excavations ● Excavations with confined spaces ● Drilled shafts for monopoles & footings

<p>A2 - Work adjacent to energized electric power hazards.</p> <p>29 CFR, 1926 Subpart CC - Cranes and Derricks in Construction.</p> <p>29 CFR, 1926 Subpart V - Electric Power Transmission and Distribution</p>	<p>Understanding the various limits of approach to prevent workers encroaching on minimum approach distances.</p>	<p>Determine the following variables relating to work adjacent to power lines and energized equipment.</p> <ul style="list-style-type: none"> ● Exposed vs. dielectrically covered conductors or parts ● Electrically Qualified vs. Non-Electrically Qualified worker ● Confirming line's owner and voltage ● Minimum approach distance <ul style="list-style-type: none"> ○ Mobile equipment, non-qualified and qualified worker ○ Non-qualified and qualified worker without mobile equipment. ○ Workers reach and extended reach ● Identify induction and static hazards. ● Mobile equipment grounding and bonding
<p>A3 - Work on or near de-energized electric power lines and equipment.</p> <p>29 CFR, 1926.961, Deenergizing lines and equipment for employee protection.</p> <p>29 CFR, 1926.962 Grounding for the protection of employees -</p>	<p>Protect workers from hazardous differences of potential voltage by understanding the requirements for an electrically safe work condition.</p>	<p>Recognize and verify the following steps are observed for a clearance:</p> <ul style="list-style-type: none"> ● Identify & request de-energized ● Switched open & verified ● Open points are tagged ● Tested for absence of nominal voltage. ● Temporary protective grounds installed - Equipotential Zone ● Differences between bonding and grounding ● Responsibilities for receiving, holding and releasing a clearance. ● Notifying affected workers.

<p>A4 - General Industry Hazardous Energy Control (LOTO)</p> <p>29 CFR, 1910.147 Control of Hazardous Energy (lockout/tagout).</p>	<p>Protection of workers from unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities.</p>	<p>Able to apply a performance based program for controlling different types hazardous energy which may include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy which are not covered in 1910.269 or 1926 Subpart V. CUSP's must be familiar with energy control program requirements such as:</p> <ul style="list-style-type: none"> ● Isolate the energy supply and put appropriate lockout or tag out devices on the energy-isolating devices to prevent unexpected re-energization. ● Train workers on the energy-control program. ● Audit these procedures periodically to ensure that they are being followed and that they remain effective.
<p>A5 - Operation of Cranes, Derricks and related Rigging</p> <p>29 CFR, 1926 Subpart CC - Cranes and Derricks in Construction.</p>	<p>Know the requirements for power-operated lifting equipment to prevent unsafe operation.</p>	<p>Aware of the requirements and standards for:</p> <ul style="list-style-type: none"> ● Ground conditions requiring ground protection mats, blocking or cribbing ● Operator qualification and certification. ● Signal person qualifications ● Rigger Qualification ● Understanding load charts ● Lift Plans & load estimations ● Critical Lifts which exceed 75% of the rated capacity of the crane or derrick or requires the use of more than one crane or derrick ● Selection & inspection of wire rope, chains, hooks, slings & shackles ● Equipment inspection requirements ● Work area control ● Different types of lift equipment including: <ul style="list-style-type: none"> ○ Gantry cranes ○ Power industrial trucks ○ Telescopic Booms ○ Lattice crane

<p>A6 - General Construction for Utility Infrastructure and Support</p> <p>ANSI / ASSP A10 The Construction and Demolition Operations Compendium of Standards</p>	<p>Become familiar with hazard identification and controls of various areas of general construction.</p>	<p>Able to research, select & apply relevant standards & requirements to ensure worker safety & correct operational procedures on:</p> <ul style="list-style-type: none"> ● Directional boring ● Erecting steel structures ● Concrete and Masonry Construction ● Grading & access road construction ● Stormwater and erosion controls. ● Demolition ● Related utilities systems such as: <ul style="list-style-type: none"> ○ Communication ○ Water ○ Sewer ○ Stream ○ Pipeline and Gas
<p>A7 - Information Transfer</p> <p>29 CFR, 1910.269 (a)(3), Information Transfer.</p> <p>29 CFR, 1926.950(c) Information Transfer,</p>	<p>Comply with the host employer's work permit process which transfers information to contractors and subcontractors before work begins.</p>	<p>Coordinate the exchange of the following information related to the safety of the individuals performing work:</p> <ul style="list-style-type: none"> ● Characteristics of installations ● Conditions and hazards known to exist or anticipated to arise during work ● Information about the design, characteristics, and operation of installations ● Unanticipated hazardous conditions from contractor to host. ● Emergency procedures and evacuations ● Work Permits may include <ul style="list-style-type: none"> ○ Hot work ○ Confined Space ○ Line Brake ○ Fall Protection ○ Line Clearance
<p>A8 - Environmental and Health hazards in General Construction</p> <p>29 CFR, 1926 Subpart Z - Toxic and Hazardous Substances</p>	<p>Prevent exposures to substances, material or conditions which could cause illness or harm.</p>	<p>Identification & awareness of construction related health hazards and industrial hygiene controls:</p> <ul style="list-style-type: none"> ● Respirable Crystalline Silica ● Asbestos ● Lead ● PCBs ● SF6 ● Welding, cutting, or grinding of toxic significance ● Occupational Noise Exposure

<p>A9 - Confined/Enclosed Spaces</p> <p>Permit Required Confined Space, 29 CFR, 1910.146 29 CFR, 1926 Subpart AA</p> <p>OSHA Publication, 3138, Permit Required Confined Space</p> <p>Enclosed Space 29 CFR, 1910.269(e)</p>	<p>A knowledge of requirements for safeguarding workers whose worksites have exposure to confined spaces</p>	<p>A working understanding of the following requirements:</p> <ul style="list-style-type: none"> ● Definition of confined spaces ● Identification of confined spaces. ● Signage and warnings ● Written program ● Pre entry testing & procedures ● Monitoring and inspection ● Air ventilation ● Re-classification ● Responsibilities for: <ul style="list-style-type: none"> ○ Host employer ○ Controlling contractor ○ Authorized Entrants ○ Attendants ○ Entry supervisor ● Rescue & emergency services
<p>A10 - Training and Qualification</p> <p>29 CFR, 1910.269(a)(2) Training.</p> <p>IEEE C2, National Electric Safety Code, Part 4,</p>	<p>Confirm workers have been trained and are qualified to perform their job assignments.</p>	<p>Determine that all workers are familiar with safety-related work practices, procedures and requirements for the risk of the hazards involved.</p> <p>Ensure that are proficient in:</p> <ul style="list-style-type: none"> ● Distinguishing live parts from other parts ● Use of precautionary techniques ● Recognizing electrical hazards ● Control or avoid electrical hazards ● Emergency procedures

<p>A11 - Ladders, Elevated Platforms and Scaffolds</p> <p>1926 Subpart L</p>	<p>Become familiar with use , hazards & work practices associated with the erection and use of ladders, platforms and scaffolds.</p>	<p>Be aware of the requirements and inspection needs for the following:</p> <ul style="list-style-type: none"> ● Ladders <ul style="list-style-type: none"> ○ Placement ○ Limitations ○ ● Scaffolding <ul style="list-style-type: none"> ○ Inspection ○ Personal Fall Protection ○ Guard and Toe Rails ○ Distance from Energized Facilities ○ Training Requirements ○ Material Handling
<p>A12 - Personal Protective Equipment</p> <p>29 CFR, 1910 Subpart I - Personal Protective Equipment</p> <p>29 CFR, 1926 Subpart E - Personal Protective and Life Saving Equipment.</p> <p>29 CFR, 1926 Subpart M - Fall Protection</p>	<p>Able to determine the appropriate personal protective equipment.</p>	<p>Familiar with the use and inspection of the following PPE fall protection and climbing equipment:</p> <ul style="list-style-type: none"> ● Positioning lanyard and strap ● Body belts ● Harnesses ● Shock Absorbing Lanyards ● Hand and face protection ● Chemical exposure protection ● Training requirements for selected devices.

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