**Excavation and Trenching Template Guide**

The template criteria provided below is a sample list of audit or inspection criteria that is potentially related to the operations at your organization. You may review the samples below and use them as jumping off points for creating custom audit or inspection templates in the SafetySkills Empower system. They may be used in their entirety without change or edited and expanded to suit the specific needs of your organization. Use of these criteria is entirely optional and to be used at your discretion.

**Documentation and Procedures**

|  |
| --- |
| Have all employees at the worksite undergone documented training on trenching and excavation and safety procedures? |
| Are warning systems established and used when mobile equipment is operating near edge of excavation? |
| Are all permits and authorizations completed and green-lit to go? |
| Have employees been trained and instructed to never get beneath suspended loads handled by lifting or digging equipment? |
| Have the hazards of working in trenches and excavations been clearly communicated to employees and have they been instructed to never enter a trench that is unprotected from cave-in?  |
| Have emergency response measures been identified/developed/created and communicated to employees in the event an injury, incident or utility strike occurs? |
| Has a- site-specific Traffic control Plan been designed and implemented? |
| Is all identified emergency response equipment, available, tested, and ready for use at a moment’s notice for changes in trench stability or development of a hazardous atmosphere? |

**Excavation**

|  |
| --- |
| Have surface encumbrances (guardrails, utility poles, trees, etc.) that may create a hazard been supported or removed? |
| Have all underground utilities been identified and marked, prior to digging?  |
| Have all underground facilities been protected, supported, or removed while the excavation is open to safeguard employees?  |
| Have adjoining buildings, walls or other structures endangered by excavation operations been supported? |
| Has the trench box been installed in line with manufacturer’s instructions and use limitations? |
| Is the trench box free from damage or defects, and are pins and spreaders installed securely? |
| Does trench box extend at least 18 inches above the vertical wall of the excavation and to within 2 feet of the bottom of the trench (or less if soil collapsing behind or below trench box)? |
| If other soil protective systems are used, are they installed in line with manufacturer’s instructions AND/OR approved by a Professional Engineer? |
| Is the heavy equipment safety zone at least 1½ times depth of trench, or more if not supported? |
| Are employees protected from loose rock or soil? |
| Are spoils, materials, and equipment set back a minimum of 2' from edge of excavation? |
| Has loose rock, unnecessary material and debris in the surrounding work area been removed or otherwise been stabilized/made safe? |
| Are walkways and bridges over excavations 6' or more in depth at least 20 inches wide, and are equipped with required guardrails? |
| Are exit ladders, steps and/or ramps placed no more than 25 feet apart? |
| Are employees prevented/prohibited from working or walking under suspended loads? |
| Are employees prevented/prohibited from working on faces of sloped or benched excavations above other employees? |
| Are barriers or fencing used to identify trench location and discourage access to unauthorized persons? |
| Is the area secured with barriers and fencing and/or rigid covers if left overnight? |

**PPE**

|  |
| --- |
| Are hard hats worn by all employees, correctly fitted, and rated? |
| Are work boots or safety shoes worn by all employees? |
| Is eye protection worn by all employees (if applicable)? |
| Is hearing protection worn by all employees (if applicable). |
| Are all trenching employees wearing high-visibility vests, jackets, or other garments of the appropriate color (e.g., yellow/orange)?  |
| Are warning vests, or other highly visible PPE provided and worn by all employees exposed to vehicular traffic? |

**Wet Weather Operations**

|  |
| --- |
| Are precautions taken to protect employees from accumulation of water? |
| Water removal equipment monitored by an approved 'competent person'? |
| Is surface water controlled or diverted away from immediate work areas? |
| Are inspections made after each significant rain event (suggest >0.25" as significant)? |
| Is water accumulating in the trench? (If yes, employees shall not work in the trench.) |
| Have adequate precautions been taken to remove water from the trench and divert surface water drainage? |

**Hazardous Atmosphere**

|  |
| --- |
| Is atmosphere tested for high or low oxygen concentrations |
| Is atmosphere tested for flammable /explosive conditions? |
| Is atmosphere tested for toxic and/or corrosive chemicals as appropriate, based on site knowledge? |
| Is Program Manager contacted if atmospheric measurements fall outside of established limits?  |
| Is any source of contamination eliminated prior to entry or otherwise are special procedures established for entry? |

**Supplemental**

|  |
| --- |
| Has safe means of access and egress (ladder, stairway, ramp, etc.) been placed in trenches greater than 4 feet in depth? |
| Has the ladder or means of access and egress been placed within 25 feet of every employee working? |
| Are ladders extended at least 3 feet above the point of access and secured? |
| Have all ladders, trench protection systems (trench shields, shoring) and other equipment been inspected by the competent person for defects before use and removed from service if defects are found?  |
| Has the soil been classified by the competent person?  |
| Have all areas of the trench, deeper than 5 feet where employees are working, been protected from cave-in by a trench Shield, Shoring or Proper Slope? (Circle Protection System) |
| Is equipment exposed to overhead power lines and is the proper clearance distance maintained? (0-50kV – 10 feet minimum clearance distance) |