TRENCHING AND EXCAVATION SAFETY

A. REFERENCES:

1. SPPM 3.46 Trench and Excavation Safety
2. WAC 296 – 155 Part N

B. APPENDICES:

a. Appendix A: Trenching and Excavation Checklist

C. SCOPE and PURPOSE:

The following procedures apply to employees working in or around excavations or trenches. This policy provides guidance for working in or around trenches and excavations.

D. RESPONSIBILITIES

Supervisors are responsible for the following:

- Designating a competent person and/or enlisting the assistance of a qualified Professional Engineer when standard means of sloping or protection are infeasible or otherwise required;
- Ensuring underground utilities are located prior to excavating or trenching;
- Ensuring excavations and trenches are overseen by a competent person and that person has the authority to take prompt corrective measures;
- Ensuring the designated competent person and employees working in and around excavations and trenches receive training; and,
- Taking corrective action with employees not conforming to this chapter's requirements, and when unsafe conditions are observed.

The Competent Person is responsible for:

- Evaluating excavation hazards, classifying soil type and identifying the appropriate protective system(s) and/or installing protective systems under the guidance of a licensed Professional Engineer;
- Completing the Trench and Excavation Checklist (Appendix A);
- Ensuring appropriate means of egress is maintained;
- Daily inspections of excavations, adjacent areas and protective systems;
- Taking corrective action when unsafe conditions are identified; and,
- Adhering to WAC 296-155 part N and SPPM S 3.46.

Employees are responsible for:

- Installing protective systems per the Competent Person's instruction;
- Ensuring appropriate egress is maintained per the Competent Person's instruction;
- Attending excavation and trenching training;
- Identifying excavation and trenching hazards including changing conditions (e.g. water infiltration) to the Competent Person and/or Supervisor; and,
- Conforming to this chapter's requirements.

E. TRAINING:

All supervisors and employees working in or around trenches and excavations must be trained in trench and excavation safety procedures. EHS or their designee shall be trained in the duties and knowledge of at a competent person to recognize hazards and understand the safety requirements associated with excavations, trenches, and applicable engineering controls for personal safety reasons. Employees shall have a basic understanding of excavation and trench related hazards, protective systems and egress requirements.

EHS will provide or arrange training to employees. All training must be documented by supervisors. Other APP chapters may apply to work in or around trench and excavations including fall protection (Chapter 11), ladder safety (Chapter 18) and confined spaces (Chapter 08).

F. PROCEDURES:

Entering excavations or trenches shall be avoided, if possible. Often environmental samples can be collected from an excavator bucket or by personnel directly involved in the excavation. Supervisors and employees must communicate with the Competent Person responsible to determine if such action is feasible without compromising safety.

A Competent Person is defined by the following: One who can identify existing or predictable hazards in the surroundings that are unsanitary, hazardous, or dangerous to employees. The competent person must be authorized to take prompt corrective measures to eliminate excavation and trenching hazards. The competent person must demonstrate knowledge of WAC 296-155 – Part N. Competent Persons are designated by a WSU entity or contractor responsible for the trench work.

When working near or when entry into an excavation or trench is necessary, the following rules and procedures apply:

- Do not enter a trench or excavation greater than 4-feet in depth unless a Competent Person is present and required protections are in place.
- Excavations or trenches less than 4-feet deep may be entered if a Competent Person clears the area of a potential cave-in.
- Do not enter a trench or excavation without supervision.
- Communicate your scope with the Competent Person to review ingress/egress routes, known hazards, PPE requirements and specific procedures required for entry or working nearby.
- Supervisors must ensure a hazard assessment is completed prior to entry into a trench or excavation. A generic hazard assessment form for trench and excavation work is found in Appendix A and may be used for this purpose. However, this must be reviewed with the employee to evaluate additional hazards as needed to support the work.
- All employees must comply with safety and health rules and practices on contractor controlled job sites. This includes specific requirements set forth by the Competent Person of a trench or excavation. Requirements may include additional PPE, safety clothing or areas designated for restricted access. Supervisors are responsible for reviewing these requirements and ensuring

employee compliance in order to perform the work safely.

- Do not enter a trench or excavation if you recognize a serious safety issue. This may include, but is not limited to; improper shoring or sloping, water accumulation, improper or unsafe ingress/egress routes, indications of soil failure or stress/undercutting, hazardous air quality or unprotected utilities.

All employees may reference Appendix A to ensure safety measures and technical information have been addressed by the Competent Person prior to entry.

APPENDIX A - TRENCH EXCAVATION CHECKLIST

TRENCHING AND EXCAVATION CHECKLIST			
PROJECT TITLE:			
COMPETENT PERSON:			
SITE LOCATION:			
Overhead hazards (general):	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Trees			
Arches/Bridges			
Overhead Power Lines			
Light Poles/Traffic Signals			
Other (list)			
Soil Conditions:	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Depth of Excavation:			
Trench Length and Width:			
Soil Class. type (A/B/C):			
Type Of Test			
Spoils/Materials Set Back			
Other (list)			
Protective Systems:	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Sloping/benching			
Shoring			
Box			
Fall Protection Plan			
Other			
Traffic Control	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Street and Road Barricades			
Street and Road Signs			
Walkway Barricades and Signs			
Detour Plan			
Transportation Services			
Other			

Storm Water Pollution Prevention	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Storm Drain Protection			
Air Quality Control-Dust Control			
Hydrant Back Flow Prevention			
Other (list)			
PPE/Personal Equipment:	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Hard Hats			
Warning Vests			
Hearing Protection			
Eye Protection			
Personal Fall Protection			
Other			
Equipment on Site:	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Water removal equipment			
Other (list)			
Other (list)			
Other (list)			
Other (list)			
Utility Locates & Protection:	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Gas lines			
Communication lines			
Power lines			
Water/sewer/irrigation lines			
Steam/condensate lines			
Chilled water lines			
Other (list)			
Trench Access and Exit	**PRE-JOB:**	**JOB START:**	**HAZARD CONTROL**
Ladder			
Ramp			
Other (list)			

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