

# Excavation Safety Checklist

*To be completed by a Competent Person*

|   |                   |                          |            |           |                 |
|---|-------------------|--------------------------|------------|-----------|-----------------|
| <b>Date &amp; Time:</b>   |                   | <b>Competent Person:</b> |            |           |                 |
| <b>Jobsite:</b>   |                   | <b>Signature:</b>        |            |           |                 |
| <b>Weather Conditions:</b>  |                   |                          |            |           |                 |
| <b>Purpose of Trenching:</b>  | Drainage          | Water                    | Sewer      | Gas       | Other:          |
| <b>Measurements of Trench:</b>  |                   |                          |            |           |                 |
| <b>Soil Classification:</b>   | Stable Rock       | Type A                   | Type B     | Type C    | Other:          |
| <b>Protective System:</b>   | Trench Shield/Box | Wood Shoring             |            | Sloping   | Other:          |
| <b>General Inspection of Jobsite</b>  |                   |                          | <b>Yes</b> | <b>No</b> | <b>N/A</b>      |
|   |                   |                          |            |           | <b>Comments</b> |
| 1. Excavations, adjacent areas and protective systems inspected daily before start of work?                                   |                   |                          |            |           |                 |
| 2. Is someone on site authorized to remove employees from excavation immediately?   |                   |                          |            |           |                 |
| 3. Have surface encumbrances been removed or supported?   |                   |                          |            |           |                 |
| 4. Are employees protected from loose rock or soil that could pose a hazard by falling or rolling into excavation?            |                   |                          |            |           |                 |
| 5. Are hard hats worn by all employees?   |                   |                          |            |           |                 |
| 6. Do spoils, materials, and equipment sit back at least two feet from the edge of excavation?                                |                   |                          |            |           |                 |
| 7. Are barriers provided at all remotely location excavations, wells, pits, shafts, etc..?                                    |                   |                          |            |           |                 |
| 8. Are walkways and bridges over excavations four feet or more in depth equipped with standard guardrails and toe boards?     |                   |                          |            |           |                 |
| 9. Are warning vests or other highly visible clothing provided and worn by all employees exposed to public vehicular traffic? |                   |                          |            |           |                 |
| 10. Do employees know to avoid loading and unloading vehicles?  |                   |                          |            |           |                 |
| 11. Is a warning system established and utilized when mobile equipment is operating near the edge of excavation?              |                   |                          |            |           |                 |
| 12. Are employees prohibited from passing under suspended loads?  |                   |                          |            |           |                 |

|  |            |           |            |                 |
|--|------------|-----------|------------|-----------------|
| 13. Are employees prohibited from working on faces of slopes or benched excavations above other employees?   |            |           |            |                 |
| <b>Utilities</b>   | <b>Yes</b> | <b>No</b> | <b>N/A</b> | <b>Comments</b> |
| 14. Has One-Call System been contacted and/or utilities been located?  |            |           |            |                 |
| 15. Has the exact location of utilities been marked?   |            |           |            |                 |
| 16. Are underground installations protected, supported, or removed when excavation is open?  |            |           |            |                 |
| <b>Means of Access and Egress</b>  | <b>Yes</b> | <b>No</b> | <b>N/A</b> | <b>Comments</b> |
| 17. Is lateral travel to means of egress no greater than 25 feet in excavations four feet or more in depth?  |            |           |            |                 |
| 18. Are ladders used in excavations secured and extended three feet above edge of trench?  |            |           |            |                 |
| 19. Are structural ramps used by only designated employees?  |            |           |            |                 |
| 20. Are structural ramps used for equipment designated by a Registered Professional Engineer (RPE)?  |            |           |            |                 |
| 21. Are ramps constructed of materials of uniform thickness, cleated together on the bottom, and equipped with a no-slip surface?                                |            |           |            |                 |
| 22. Are employees protected from cave-ins when entering and exiting excavation?  |            |           |            |                 |
| <b>Wet Conditions</b>  | <b>Yes</b> | <b>No</b> | <b>N/A</b> | <b>Comments</b> |
| 23. Are precautions taken to protect employees from accumulation of water?   |            |           |            |                 |
| 24. Is water removal equipment monitored by appropriate person?  |            |           |            |                 |
| 25. Is surface water or runoff being diverted/controlled to prevent accumulation in excavation?  |            |           |            |                 |
| 26. Are inspections made after every rainstorm or other hazard-increasing occurrence?  |            |           |            |                 |
| <b>Hazardous Atmosphere</b>  | <b>Yes</b> | <b>No</b> | <b>N/A</b> | <b>Comments</b> |
| 27. Is the atmosphere within excavation tested for the possibility of oxygen deficiency, combustible or other harmful contaminant exposing employees to hazards? |            |           |            |                 |

|   |            |           |            |                 |
|---|------------|-----------|------------|-----------------|
| 28. Are adequate precautions taken to protect employees from exposure to atmosphere containing less than 19.5% oxygen and/or other hazardous atmospheres?                     |            |           |            |                 |
| 29. Is ventilation provided to prevent employee exposure to atmosphere containing flammable gas in excess of 10% of lower explosive limit of gas?                             |            |           |            |                 |
| 30. Is testing conducted often to ensure atmosphere remains safe?   |            |           |            |                 |
| 31. Is emergency equipment, such as breathing apparatus, safety harness and lifeline and/or basket stretcher, readily available where hazardous atmospheres could/do exist?   |            |           |            |                 |
| 32. Are employees trained to use personal protective and other rescue equipment?  |            |           |            |                 |
| 33. Is a safety harness and lifeline used and individually attended when entering bell bottom or other deep confined excavations?   |            |           |            |                 |
| <b>Support Systems</b>  | <b>Yes</b> | <b>No</b> | <b>N/A</b> | <b>Comments</b> |
| 34. Are materials and/or equipment for support systems selected based on soil analysis, trench depth, and expected loads?   |            |           |            |                 |
| 35. Are the materials used for protective systems inspected and in good condition?  |            |           |            |                 |
| 35. Have materials and equipment not in good condition been removed from service?   |            |           |            |                 |
| 36. Have damaged materials and equipment used for protective systems been inspected by a Registered Professional Engineer (RPE) after repairs and before returned to service? |            |           |            |                 |
| 37. Are protective systems installed without exposing employees to hazards of cave-ins, collapses, or threat of strike by materials or equipment?                             |            |           |            |                 |
| 38. Are members of the support system securely fastened to prevent failure?   |            |           |            |                 |
| 39. Are support systems provided to ensure stability of adjacent structures, buildings, roadways, sidewalks, walls, etc..?  |            |           |            |                 |
| 40. Have excavations below level of base or footing supported and approved by a Registered Professional Engineer (RPE)?   |            |           |            |                 |

|   |  |  |  |  |
|---|--|--|--|--|
| 41. Has the removal of support systems progressed from bottom and members released slowly to note any indication of possible failure?   |  |  |  |  |
| 42. Has backfilling progressed with the removal of the support system?  |  |  |  |  |
| 43. Is the excavation of material to level no greater than two feet below the bottom of the support system and only if the system is designed to support loads calculated for full depth? |  |  |  |  |
| 44. Is a shield system placed to prevent lateral movement?  |  |  |  |  |
| 45. Are employees prohibited from remaining in the shield system during vertical movement?  |  |  |  |  |

*KEMI does not assume liability for the content of information contained herein. Safety and health remain your responsibility. This information is to be used for informational purposes only and not intended to be exhaustive or a substitute for proper training, supervision or manufacturers' instructions/recommendations. KEMI, by publication of this information, does not assume liability for damage or injury arising from reliance upon it. Compliance with this information is not a guarantee or warranty that you will be in conformity with any laws or regulations nor does it ensure the absolute safety of any person, place or object, including, but not limited to, you, your occupation, employees, customers or place of business.*