

1.1 PURPOSE

- 1.1.1 The purpose of this policy is to provide guidance and instruction to safely perform work around or in excavations or trenches and protect employees from hazards associated with excavation or trenching work. This document is not meant to supersede or replace regulatory requirements, nor is it intended to be all inclusive of the applicable regulatory requirements. It is intended to be supportive and complementary to such requirements.

1.2 RESPONSIBILITIES

- 1.2.1 Management (includes all personnel with a supervisory role)
- 1.2.1.1 Empower all personnel with the authority to *Stop Work* whenever hazardous conditions or potentially hazardous conditions are identified.
 - 1.2.1.2 Protect the public from open excavations and accidental entry.
 - 1.2.1.3 Verify compliance regarding OSHA competent person requirements and appropriate operator qualifications, as per the client task requirements.
 - 1.2.1.4 Facilitate excavation and competent person training programs.
 - 1.2.1.5 Require and verify that the competent person is on site when personnel are working in or near the excavation.
 - 1.2.1.6 Require and verify that existing utilities, structures, and roadways are properly protected and supported.
 - 1.2.1.7 Require that atmospheric monitoring be conducted when working in or near open excavations with a potential for hazardous atmospheres to be present.
 - 1.2.1.8 Require and verify that a competent person and a professional engineer is designated to perform duties and authorities as listed in OSHA 1926, Subpart P.
- 1.2.2 Safety manager
- 1.2.2.1 Provide technical support for excavation and trenching safety guidelines.
 - 1.2.2.2 Evaluate the effectiveness of the excavation and trenching plan.
 - 1.2.2.3 Immediately stop and correct any health and/or safety related non-compliant activities.
 - 1.2.2.4 Verify that applicable personnel receive the appropriate excavation entry, atmospheric testing or monitoring, competent person training.
 - 1.2.2.5 Verify that atmospheric monitoring is conducted when working in or near open excavations with a potential for hazardous atmospheres to be present.

Excavation and Trenching

1.2.2.6 Verify the protection of all entrants from excavated soil or other materials that could pose a hazard by falling or rolling into the excavation as per OSHA 1926, Subpart P.

1.2.3 Employee

1.2.3.1 Enter excavations only when a competent person has determined that the excavation complies with applicable federal, state, and local standards as well as the provisions of this written program.

1.2.3.2 Enter excavations only in the execution of work duties and when authorized by your supervisor. Exit the excavation as soon as the work is complete.

1.2.3.3 Do not enter or occupy an excavation or trench when there is a potential to come in contact with operating equipment or materials in the excavation.

1.2.3.4 Do not work in excavations where water is accumulating unless the water is being controlled and maintained at a safe level.

1.2.3.5 Report any non-compliant excavation and trenching safety activities to a supervisor.

1.2.4 Competent person

1.2.4.1 Designated by TERRY R PITT CONSTRUCTION and capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees.

1.2.4.2 Trained, experienced, and knowledgeable of soil analyses, use of protective systems, and requirements of 29 CFR 1926 Subpart P.

1.2.4.3 Ability to detect conditions that could result in cave-ins, hazardous atmospheres, and other hazards including those associated with confined spaces.

1.2.4.4 Authority to take prompt corrective measures to eliminate existing and predictable hazards and to stop work when required.

1.2.5 Spotter

1.2.5.1 Understand expectations of duties before acting as a spotter.

1.2.5.2 Understand the hazards you are helping to control.

1.2.5.3 Understand hazards and controls you are exposed to.

1.3 PRE-JOB PLANNING

1.3.1 Develop a work plan for each excavation. Mark the outline of the excavation area, if of reasonable size, with white paint prior to requesting locator services.

1.3.2 Excavators are required to maintain a minimum clearance of two feet between an unexposed underground utility and the cutting edge or point of any power operated excavating or earthmoving equipment. Verify that no mechanical equipment digs are planned to be performed within two feet of any utility. Vacuum excavation or hand tools must be used when less than two feet.

Excavation and Trenching

- 1.3.3 Ensure other utility owners agree with ground cover conditions prior to placement of excavation equipment over the affected utilities.
- 1.3.4 TERRY R PITT CONSTRUCTION will notify the client representative prior to excavation.
- 1.3.5 A protective barrier will be installed in areas where there may be pedestrian or vehicular traffic to prevent unauthorized entry.
- 1.3.6 Verify the installation of high visibility markings of all underground crossings and structures, 50 feet upstream and downstream from the planned excavation.

1.4 ONE CALL REQUIREMENTS

- 1.4.1 The approximate location of subsurface installations, such as sewer, telephone, fuel, electric, water lines, or any other subsurface installations that reasonably may be expected to be encountered during excavation work, will be determined by the excavator prior to opening an excavation. One call locating is a state law designed to protect workers, underground facilities, property, and public.
- 1.4.2 When digging or excavating using mechanical equipment – TERRY R PITT CONSTRUCTION will use the one call system to give notice of their plans to dig in a specific area 48 and sometimes up to 72 hours prior to any excavation activity.
- 1.4.3 TERRY R PITT CONSTRUCTION must contact utility companies or owners within established or customary local response times, advise them of the proposed work, and ask them to establish the location of the utility underground installations prior to the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within twenty-four hours (unless a longer period is required by state or local law), or cannot establish the exact location of these installations, TERRY R PITT CONSTRUCTION may proceed, provided it does so with caution, and will use provided detection equipment or other acceptable means to locate utility installations. When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means. While the excavation is open, underground installations must be protected, supported, or removed as necessary to safeguard employees.
- 1.4.4 Verify that proper notifications to one call are made prior to beginning any excavation and that documentation of the notification(s) is maintained. Such notifications may include a description of the proposed work, including the scheduled start date and request for underground installation location identification with temporary markings.
- 1.4.5 Verify that the one call has been made and that utilities are marked and depth verified before the commencement of digging activities.
- 1.4.6 If temporary markings are moved, damaged, or no longer visible, TERRY R PITT CONSTRUCTION will contact the one call center to have the lines remarked before any excavation continues.
- 1.4.7 TERRY R PITT CONSTRUCTION is responsible for reasonably protecting and preserving locate markings until no longer required for proper and safe excavation work near the underground line. If a

Excavation and Trenching

TERRY R PITT CONSTRUCTION employee has reason to believe a locate is obliterated, obscured, missing, or incorrect, the employee will notify a supervisor or one call center in order to have an operator verify, refresh, or remark the locate.

- 1.4.8 TERRY R PITT CONSTRUCTION employees should also plan their work so as to minimize damage to markings. Remove all flags when the project has been completed.

1.5 SOIL TYPES

- 1.5.1 Soil classifications must be determined by testing along with protective systems designed according to soil classifications.
- 1.5.2 Type A -Most stable: clay, silty clay, and hardpan (resists penetration). No soil is Type A if it is fissured, is subject to vibration of any type, has previously been disturbed, or has seeping water.
- 1.5.3 Type B - Medium stability: silt, sandy loam, medium clay and unstable dry rock; previously disturbed soils unless otherwise classified as Type C; soils that meet the requirements of Type A soil but are fissured or subject to vibration.
- 1.5.4 Type C - Least stable: gravel, loamy sand, soft clay, submerged soil or dense, heavy unstable rock and soil from which water is freely seeping.
- 1.5.5 Layered geological strata - The soil must be classified on the basis of the soil classification of the weakest soil layer. Each layer may be classified individually if a more stable layer lies below a less stable layer (ex. where a Type C soil rests on top of stable rock).
- 1.5.6 Because most excavations will be conducted in order to repair/replace existing pipelines or equipment (ex. the soil has been previously disturbed), excavations will be made to meet the requirements for Type B or Type C soils only, as appropriate.

1.6 TESTING METHODS

- 1.6.1 The competent person will be responsible for determining whether the soil is Type B or C. If the competent person wants to classify the soil as Type C, they do not need to do any tests. Tests must be conducted to determine if the soil can be classified as Type B. To do this, the competent person will use a visual test coupled with one or more manual tests.
- 1.6.2 In addition to checking the items on the trench inspection form, the competent person should perform a visual test to evaluate the conditions around the site. In a visual test, the entire excavation site is observed, including the soil adjacent to the site and the soil being excavated. The competent person also checks for any signs of vibration.
- 1.6.3 During the visual test, the competent person should check for crack-line openings along the failure zone that would indicate tension cracks, look for existing utilities that indicate that the soil has been previously disturbed and, if so, what sort of backfill was used, and observe the open side of the excavation for indications of layered geologic structuring.

Excavation and Trenching

- 1.6.4 This person should also look for signs of bulging, boiling, or sloughing, as well as for signs of surface water seeping from the sides of the excavation or from the water table.
- 1.6.5 In addition, the area adjacent to the excavation should be checked for signs of foundations or other intrusions into the failure zone and the evaluator should check for surcharging and the spoil distance from the edge of the excavation.

1.7 INSPECTIONS

- 1.7.1 The competent person will conduct all inspections.
 - 1.7.1.1 Daily and before the start of each shift
 - 1.7.1.2 As dictated by the work being done in the trench
 - 1.7.1.3 After every rain storm, snowstorm, windstorm, thaw, earthquake, or other dramatic change in weather that could increase hazards
 - 1.7.1.4 When fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom, or other similar conditions occur.
 - 1.7.1.5 When there is a change in the size, location, or placement of the spoil pile.
 - 1.7.1.6 When there is any indication of change or movement in adjacent structures.
- 1.7.2 Inspections must be completed for each piece of heavy equipment being used before starting the excavation. The inspection must be documented on a *Daily Equipment Report* form by operators before use each shift. Supervisor approval is required prior to commencing work if any deficiencies are noted. Equipment in need of repair is not to be used until cleared by shop mechanic.

1.8 PROTECTIVE SYSTEMS

- 1.8.1 All surface encumbrances that are located so as to create a hazard to employees will be removed or supported, as necessary, to safeguard employees and prevent undermining adjacent structures.
- 1.8.2 Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning will be provided to ensure the stability of such structures for the protection of employees.
- 1.8.3 Excavations or trenches deeper than ≥ 20 feet must have a protective system designed by a registered professional engineer.
- 1.8.4 Shielding
 - 1.8.4.1 Shielding involves a pre-constructed structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shielding must extend above the ground level or the trench walls above the top of the box must be sloped.
 - 1.8.4.2 Shields can be permanent structures or can be designed to be portable and moved along as work progresses.

Excavation and Trenching

- 1.8.4.3 The excavated area between the outside of the trench box and the face of the trench should be as small as possible. The space between the trench box and the excavation side must be backfilled to prevent lateral movement of the box. A shield may not be subjected to loads exceeding the rating it was designed to withstand.
- 1.8.4.4 Box must extend at least 18 inches above surrounding area if there is sloping toward the excavation. This can be accomplished by providing a benched area adjacent to the box.
- 1.8.4.5 Workers must enter and exit the box in a protected manner, such as ladder or ramp.
- 1.8.4.6 Workers may not remain in the shield while it is being moved.
- 1.8.5 Shoring
 - 1.8.5.1 Shoring is where a structure such as a metal hydraulic, mechanical, or timber shoring system supports the sides of an excavation and is designed to prevent cave-ins.
 - 1.8.5.2 There are two basic types of shoring, timber and aluminum hydraulic. Hydraulic shoring provides an advantage over timber because workers do not have to enter the trench to install them. They are also light enough to be installed by one worker. They are gauge regulated to ensure even distribution of pressure along the trench line and they can be adapted easily to various trench depths and widths.
 - 1.8.5.3 All shoring will be installed from the top down and removed from the bottom up. Hydraulic shoring will be checked at least once per shift for leaking hoses or cylinders, broken connections, cracked nipples, bent bases, or other damaged parts.
 - 1.8.5.4 The top cylinder of hydraulic shoring will be no more than 18 inches below the top of the excavation. The bottom of the cylinder will be no higher than 4 feet from bottom of the excavation.
 - 1.8.5.5 Three vertical shores, evenly spaced, must be used to form a system. Wales are installed no more than 2 feet from the top, no more than 4 feet from the bottom and no more than 4 feet apart, vertically.
- 1.8.6 Benching
 - 1.8.6.1 Benching is a method of protecting workers from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.
 - 1.8.6.2 Benched excavations \leq 20 feet in depth will have a 1:1 maximum allowable slope.
 - 1.8.6.3 Benching is not allowed in Type C soil.
- 1.8.7 Sloping
 - 1.8.7.1 Sloping is a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins.

Excavation and Trenching

1.8.7.2 The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

1.8.7.3 Maximum allowable slopes for excavations < 20 feet based on soil type and angle to the horizontal are as follows:

SOIL TYPE	HEIGHT/DEPTH RATIO	SLOPE ANGLE
Type B	1:1	45°
Type C	1½:1	34°

1.9 GENERAL SAFETY GUIDELINES

1.9.1 A competent person will be placed in charge of all excavations.

1.9.2 All employees have and must use *Stop Work* authority whenever non-compliance with the guidelines in this document or the site-specific excavation plan or potentially hazardous conditions are identified.

1.9.3 Underground utilities must be located and marked before excavation begins. The one call ticket and all associated contact information should be present onsite during the entire excavation.

1.9.4 An onsite walk through, established communication paths, a pre-job tailgate, and a job safety analysis must be done before the excavation begins.

1.9.5 Sufficient lighting will be provided to facilitate safe operations at each work location.

1.9.6 All employees on an excavation site must wear hard hats.

1.9.7 Employees are not allowed to work under raised loads.

1.9.8 No one will enter or exit an excavation or perform work outside of the protective system provided.

1.9.9 Employees should not be allowed in a trench box when they are being installed, removed, or moved horizontally or vertically.

1.9.10 All open holes or trenches must be protected. Where employees or equipment are required or permitted to cross over excavations over 6 feet in depth and wider than 30 inches, walkways or bridges with standard guardrails will be provided as fall protection.

1.9.11 Employees exposed to vehicular traffic will be provided with and required to wear reflective vests or other suitable garments marked with or made of reflectorized or high visibility materials.

1.9.12 Trained flag persons, signs, signals, and barricades will be used when necessary.

Excavation and Trenching

- 1.9.13 A stairway, ladder, ramp, or other safe means of egress will be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees. Means of egress at a minimum lateral travel distance must be so a worker will not have to travel more than 25 feet laterally to the nearest means of escape. Ladders must be secured and extend a minimum of 36 inches above the landing. Metal ladders should not be used when electric utilities are present.

1.10 MOBILE EQUIPMENT

- 1.10.1 Employees are not allowed in excavation while heavy mobile equipment is digging or allowed to work under loads being lifted or moved by heavy equipment used for digging or lifting.
- 1.10.2 Employees are required to stand away from heavy mobile equipment that is being loaded or unloaded to avoid being struck by falling materials or spillage.
- 1.10.3 Equipment operators or truck drivers may remain in their equipment during loading and unloading if the equipment is properly equipped with a cab shield or adequate canopy.
- 1.10.4 When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system will be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
- 1.10.5 The following steps should be taken to prevent vehicles from accidentally falling into the trench:
- 1.10.5.1 Barricades must be installed where necessary.
 - 1.10.5.2 Hand or mechanical signals must be used as required.
 - 1.10.5.3 Trenches left open overnight will be fenced and barricaded.
- 1.10.6 Protection will be provided by placing and keeping materials or equipment at least 2 feet from the edge of excavations or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- 1.10.7 Spoil piles should be placed so that they channel runoff water away from the excavation. Spoil piles should be placed so that they cannot accidentally run, slide, or fall back into the excavation.
- 1.10.8 Verify, prior to backfilling, that equipment, materials, or other debris generated during the process of work activities are removed.

1.11 SPOTTER

- 1.11.1 A spotter is required whenever the direction of travel changes and the operator does not have a clear view of the direction of travel, the operator's view is obstructed, or if traffic must be controlled to maneuver safely.
- 1.11.2 A spotter is required to ensure the operator maintains a 20 foot minimum distance from overhead lines and when traveling under overhead utilities.

Excavation and Trenching

- 1.11.3 If there is a possibility of excavating within two feet of buried utilities, an operator needs assistance to excavate and expose utilities or when the operator does not have a clear view of the attachments.
- 1.11.4 At all times while the excavation is occurring, the spotter and equipment operator will maintain a clear line of sight with each other, the equipment attachments, and route of travel so potential conflicts are identified and avoided.

1.12 HAZARDOUS ATMOSPHERES

- 1.12.1 Employees will not be permitted to work in confined spaces with hazardous or toxic atmospheres. Such atmospheres include those with:
 - 1.12.1.1 Less than 19.5% oxygen
 - 1.12.1.2 A combustible gas concentration greater than 20% of the lower flammable limit
 - 1.12.1.3 Concentrations of hazardous substance that exceed those specified in the Threshold Limit Values for airborne contaminants established by the ACGIH
- 1.12.2 In excavations greater than 4 feet in depth or where there is an oxygen deficiency, flammable gases or liquids, or where other hazardous atmospheres exist or may be anticipated, the atmospheres in the excavation will be tested before employees enter.
- 1.12.3 Testing and controls will be put in place to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions. Testing of oxygen levels should be accomplished followed by combustible gases and toxic chemicals. Testing should be conducted before employees enter the trench and should be done regularly to ensure that the trench remains safe.
 - 1.12.3.1 The frequency of testing should be increased if equipment is operating in the trench and if welding, cutting, or burning is done in the trench.
 - 1.12.3.2 Do not store propane and/or compressed gas in the excavation. Remove it from the excavation after pre-heating is complete.
- 1.12.4 All operations involving such atmospheres must be conducted in accordance with OSHA requirements for personal protective equipment and lifesaving equipment. Engineering controls (such as ventilation) and respiratory equipment may be required.
 - 1.12.4.1 Employees required to wear respiratory protection must be trained, fit tested, and enrolled in a respiratory protection program.
- 1.12.5 A confined space entry permit must be obtained before entry can be made into a trench deeper than 4 feet with a hazardous atmosphere. When this occurs, compliance with OSHA Confined Space standard is required.

1.13 WATER ACCUMULATION

- 1.13.1 Employees will not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation.

Excavation and Trenching

- 1.13.2 Methods for controlling standing water/water accumulation must be provided if workers must work in excavation. Water removal equipment, such as pumps, must be monitored by a competent person.
- 1.13.3 Employees must be removed from the trench during rainstorms. Trenches must be inspected by a competent person after each rain and before employees are permitted to re-enter the trench.
- 1.13.4 Vacuum excavation is a non-mechanical, non-destructive process that may be used by TERRY R PITT CONSTRUCTION where an industrial strength vacuum withdraws water. Water slurry is carried by vacuum to a debris tank. This method is preferred in undisturbed and cohesive soil scenarios.
- 1.13.5 If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other drainage system, suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person.

1.14 INCIDENT REPORTING/LINE STRIKE

- 1.14.1 Evacuate the area and immediately contact the safety manager or a supervisor if there is a dangerous situation. Call 9-1-1 immediately if workers have physically come in contact with lines.
- 1.14.2 If any damage occurs to an underground line or its protective covering, TERRY R PITT CONSTRUCTION will notify the utility company and client directly, as soon as reasonably possible, to make them aware of what has happened.
- 1.14.3 The TERRY R PITT CONSTRUCTION safety manager will respond to the incident in a timely manner to conduct an incident report. When the utility company arrives to the damage area to investigate, TERRY R PITT CONSTRUCTION will share the incident report.
- 1.14.4 If the damage endangers life, health, or property, TERRY R PITT CONSTRUCTION will take immediate action to protect the public and property and to minimize the hazard until arrival of the utility personnel or until emergency responders have arrived and taken charge of the damaged area.
- 1.14.5 If a line has been exposed during the course of digging, it is TERRY R PITT CONSTRUCTION's responsibility to inspect and support the line before backfilling.
- 1.14.6 TERRY R PITT CONSTRUCTION workers will delay backfilling in the immediate area of the damaged underground facilities until the damage has been investigated by the utility company or unless the utility company authorizes otherwise. The repair of damage must be performed by the utility company or by qualified personnel authorized by the utility company.
- 1.14.7 TERRY R PITT CONSTRUCTION employees must inspect underground lines for any damage which could include the pulling or kinking of the line or damage to the protective cover. If there is any question about possible danger, contact the safety manager for instructions.
 - 1.14.7.1 An employee who knowingly damages an underground facility, does not report the incident as soon as reasonably possible, or who backfills in violation of this policy is subject to disciplinary action up to and including termination.

1.15 EMERGENCY RESCUE EQUIPMENT

- 1.15.1 Emergency rescue equipment will be readily available if TERRY R PITT CONSTRUCTION employees are working in an excavation site more than four feet deep with the potential for hazardous atmospheric conditions.
 - 1.15.1.1 Emergency rescue equipment may include a breathing apparatus, a safety harness, and line or a basket stretcher.
 - 1.15.1.2 Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, will wear a harness with a lifeline securely attached to it. The lifeline will be separate from any line used to handle materials, and will be individually attended at all times while the employee wearing the lifeline is in the excavation.
- 1.15.2 Workers must have immediate access to emergency equipment because hazardous conditions in trenches require an immediate response. The safety manager should be made aware of entry prior to starting the job.
- 1.15.3 A standby worker or attendant must remain outside of the site at all times when workers are inside of the space. The attendant should have no other responsibilities besides serving as a standby for the inside workers. The attendant should maintain constant visual and verbal communication with the workers on the inside of the confined space.
 - 1.15.3.1 If an emergency arises, attendant should immediately summon the rescue team. The attendant should not enter the trench until help arrives. At that time, if the attendant has the proper PPE and training, the attendant may help with rescue efforts.
- 1.15.4 Rescue services that can be performed safely from outside the excavation, such as hoisting a harnessed victim, will be undertaken using utmost caution. Other personnel in excavation must exit the excavation immediately, establish a safety perimeter around the excavation, and await emergency services, providing assistance only when able to do so without endangering their own safety.

1.16 TRAINING

- 1.16.1 All employees engaged in work activities will be given orientation training including orientation to excavation safety.
- 1.16.2 Prior to exposure or an assignment to excavation activities, employees engaged in excavation work activities will complete training that will include hazard identification, safe work practices, and the contents of this policy.
- 1.16.3 Spotters will receive additional training on backing, traveling, rigging, and signaling.
- 1.16.4 Atmospheric monitoring training should be provided to personnel engaged in such monitoring.
- 1.16.5 If necessary, workers must be trained in confined space entrant and attendant responsibilities and permit requirements prior to entering any space that may contain a hazardous atmosphere.

Excavation and Trenching

- 1.16.6 Designated employees should be trained and qualified to the competent person level allowing them to identify and address excavation hazards.
- 1.16.7 Workers must attend any required site-specific or client-specific training.
- 1.16.8 Equipment operators will be properly trained and evaluated on safe equipment operation, in accordance with the equipment manufacturer’s operating maintenance instructions, and as per applicable regulatory requirements.
- 1.16.9 Periodic refresher training will be conducted when the need for refresher training is recognized.
- 1.16.10 Employees will not create or work in an excavation until they have successfully completed TERRY R PITT CONSTRUCTION’s excavation training program. This includes all new excavation workers regardless of claimed previous experience.
- 1.16.11 Personnel not involved in the actual trenching procedures will be given basic awareness information on excavation operations.
- 1.16.12 Training records will be documented and maintained by the safety manager.

