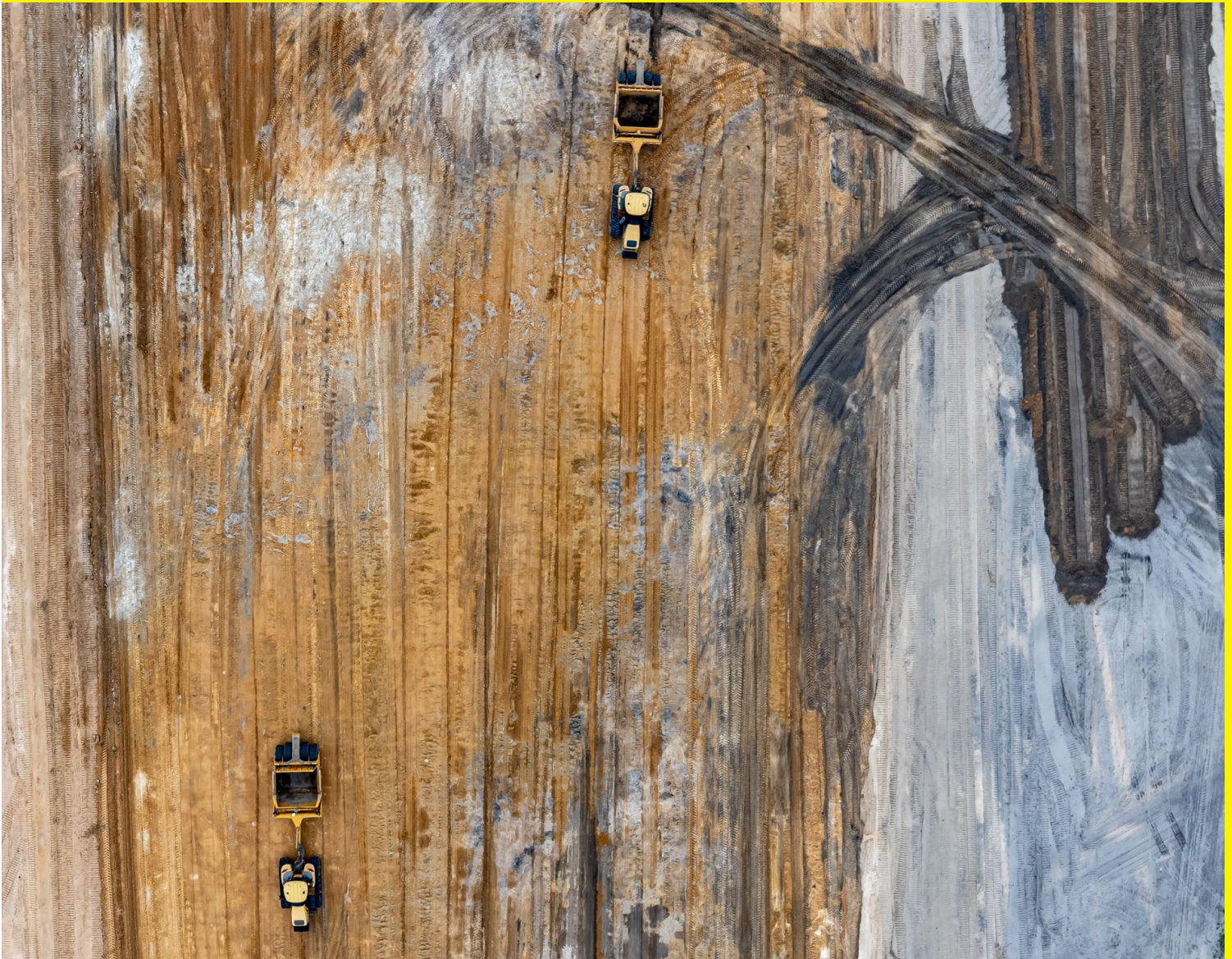


SUBCONTRACTOR SAFETY STANDARD





At Phillips, People Done Right isn't a slogan — it's who we are.

It's the foundation of our culture and the standard we live by on every project, in every community, and with every person we work alongside. It means doing the right thing, the right way, every time — for our people, our clients, and the places we help build.

This commitment is a fundamental cornerstone of our business and is shared by all Phillips employees, from executive to craft. We embrace individual accountability at all levels, starting with our leadership and extending out to our people and our subcontract employees. Our subcontract employees must be willing to embrace the same commitment and hold their people accountable for those expectations.

This Subcontractor Safety Standard (SSS) was developed to communicate company specific requirements and expectations of all subcontractors, including lower tier contractors, consultants, vendors, and visitors hereinafter collectively referred to as “Contract Partners” that access Phillips project sites and is not intended to encompass all potential safety concerns inherent in the performance of work or every safe practice intended to protect personnel.

Contract Partner supervision is required to identify and evaluate hazards for each unique set of circumstances surrounding a task and identify the need for additional controls beyond the requirements established in this document. Contract Partners are required to review, understand, and abide by all requirements defined in this document and within their own program, following whichever is more stringent. In addition to the SSS, all work activities and processes performed by Contract Partners shall comply with all applicable local, state, and federal regulations, laws, and owner/client contractual requirements. Regulating authorities include but are not limited to the following:

- Occupational Safety and Health Administration (OSHA)
- U.S. Department of Transportation (DOT)
- Mine Safety and Health Administration (MSHA)
- U.S. Army Corps of Engineers (USACE)
- Environmental Protection Agency (EPA)
- Pipeline and Hazardous Materials Safety Administration (PHMSA)
- Federal Emergency Management Agency (FEMA)
- The Manual on Uniform Traffic Control Devices (MUTCD)



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1 CONTRACT PARTNER'S RESPONSIBILITIES

1.1 Training & Qualifications

- a. Contract Partners shall ensure that their employees have the proper training and qualifications, as required by the Occupational Safety and Health Administration (OSHA). All training documentation must be submitted to Phillips management team prior to arrival at the project. This documentation includes, but is not limited to, operator qualifications, excavations, confined space, crane operator certifications, rigging, etc.
- a. Each Contract Partner employee must attend a Phillips project specific safety orientation before being allowed to begin any work on the project site. Additional orientation may be necessary dependent on client requirements.
- b. Each Contract Partner shall ensure their project supervision is knowledgeable and competent in all safety aspects of their work. The competent person is to be on site at all times while their work is in progress. Identification and qualifications of competent persons shall be submitted to the Phillips project team using the Designated Competent Persons List (see Appendix A) prior to commencing work.
- c. Contract Partners must hold weekly toolbox safety meetings with all personnel assigned to the project. Copies of these meetings and attendance sheets will be submitted to Phillips within 24 hours of the meeting date. Training shall be bilingual when required.
- d. Each Contract Partner must participate in project-wide safety meetings. These meetings will be conducted as necessary to discuss the schedule of upcoming work, safety/project communications, and recognition.
- e. Contract Partners shall ensure that their employees have been trained in hazard recognition and mitigation per OSHA training requirements.
- f. Each Contract Partner crew is responsible to lead and document their Job Hazard Analysis and submit to Phillip's supervision. The hazard analysis should cover all expected tasks for the day, hazards associated with the tasks, and mitigations to avoid/eliminate those hazards. This must be attended and signed by all employees on Phillips projects.

1.2 Storm Monitoring & Severe Weather

- a. Lightning protection begins when strikes are 10 miles away.
- b. Severe weather plans must include securement of materials and equipment in the event of severe weather and storms
- c. Hurricanes or tropical storms require careful planning and must be monitored leading up to the event. Work will not commence when hurricanes or tropical storms are expected to land.



- d. No work is to be completed during a tornado warning. Contract Partner should expect to evacuate in advance to ensure workers have adequate time to see shelter or return home.
- e. All cranes, aerial lifts, and other equipment at heights must shut down when winds reach greater than 20mph.

1.3 Medical / First Aid

- a. Contract Partners shall have first aid supplies in the project work location that are easily accessible. The contents of the first aid kits must be inspected at least weekly to ensure they are fully stocked and that items are not expired.
- b. First aid kits and fire extinguishers must be provided in all site clearing machinery.
- c. All employees involved in logging operations shall be trained in FA/CPR.
- d. Chainsaw operators must have immediate access to Stop the Bleed kits.
- e. Logging first aid kit with suitable tourniquet must be provided and available at every cutting site.
- f. Contract Partners shall ensure an ANSI-approved eye wash and/or safety shower is provided, appropriate for the work scope and materials used, within the work area.
- g. Prior to allowing personnel on the project site, Contract Partners shall have a plan and assess employees who may or are known to have an allergic reaction to any stinging insects, weeds, or other substances. Contract Partner employees who have a known allergy should have an EPI pen in their immediate possession.

1.4 Drug Free Workplace

- a. The use or possession of any illegal drugs, a controlled substance without a valid prescription, and/or the misuse of any prescription or over the counter medication by any Contract Partner employee will result in immediate removal from the project site.
- b. Prescription medication or otherwise which may have an impact on work in a safety sensitive environment must be cleared by Contract Partner to determine fitness for duty.
- c. Any Contract Partner employee who is consuming or is under the influence of any alcoholic beverage or other intoxicating substance while on the project site will be immediately removed from the site. This includes all Cannabinoid derivatives such as Delta 8 & 9, etc.
- d. Upon request by Phillips or the client, the Contract Partner's employee shall submit to a drug and/or alcohol test. The request will normally be made only if:
 - i. Reasonable suspicion exists to believe that the employee is under the influence or in possession of alcohol, drugs, or other controlled substance.



- ii. The employee is involved in an accident or situation on the job site that results in any injury to the employee or any other individual or results in any property damage.
- iii. Pre-mobilization testing is required by a client or General Contractor.

1.5 Incident Reporting & Investigation

- a. All injuries, occupational illnesses, near misses, and property damage, no matter how minor, shall be reported to Phillips's site supervision immediately. Updates must be provided immediately as additional information is obtained.
- b. A Supervisor Loss Investigation Report form (see Appendix B) must be completed and submitted within 48 hours of the incident unless the owner/client has a more restrictive requirement.
- c. Phillips reserves the right to require the contract partners to respond with corrective actions to include, but not limited to:
 - i. Conducting a Safety Stand Down
 - ii. Re-Training of Personnel
 - iii. Submitting a Safety Improvement Plan for Approval
 - iv. Adding an approved Safety Representative assigned to the project at a frequency determined by Phillips
 - v. Instituting progressive discipline
 - vi. Removal of Subcontractor personnel from the project as warranted

1.6 Oversight & Inspections

- a. Contractor Partners are responsible for controlling and maintaining their work areas free of hazards and must supervise their own crews and oversee the work they perform.
- b. To ensure clear communications on the project, non-English speaking crews must have a minimum of one bilingual supervisor on site who is always available for translation.
- c. Contract Partners are prohibited from working on a project site, such as weekends or after hours, without a Phillips designated representative to provide oversight. This work must be coordinated with Phillips Supervision.
- d. Contract Partners must perform internal job site safety inspections at a minimum of weekly.
- e. Contract Partners are required to respond timely with corrective actions to any safety deficiencies identified in safety inspections of the Contract Partner's activities. Imminent



danger or other serious safety deficiencies will require work stoppage until corrective measures can be instituted.

- f. Contract Partners must provide one (1) designated Safety Representative, approved by Phillips, for every 50 personnel on site. This individual(s) may have collateral duties as long as they can successfully fulfill the role and only with the approval of Phillips Safety Director. The requirement for a full-time safety professional may be more restrictive based on Owner/Client requirements or at Phillips' discretion due to risk of work or prior safety performance.
- g. Phillips has the right to remove Contract Partner personnel from the project site, based on unsafe work practices or other factors affecting the project team's safety.
- h. Lone workers are prohibited from performing the following operations:
 - i. Operating heavy Machinery
 - ii. Working at heights
 - iii. Working on, over, or near water
 - iv. Entering excavations or confined spaces
 - v. Work in which emergency response time is limited

1.7 Stop Work

- a. Contract Partners must ensure all personnel on the project understand their authority to "Stop Work" free from retribution if they identify any work they believe is unsafe, unhealthy, or a threat to the environment.
- b. Failure to use Stop Work could result in disciplinary action up to and including termination.



2 SAFE PRACTICES

2.1 Housekeeping

- a. Projects must be cleaned continually, have supervision at all times, provide someone to immediately translate for non-native English speakers.
- b. Contract Partners must begin and end the day with a Pre/Post job briefing to discuss safe work practices.
- c. Each work area shall be cleaned daily or as often as necessary to remove fire and safety hazards discovered through regularly scheduled inspections. All tools, scaffolding, and materials shall be removed from the work area at the completion of the work. All scrap, waste material, and rubbish shall be removed from the work area daily.
- d. All hoses, cables, extension cords, materials, and supplies shall be located, arranged, and grouped so that they will not block any accessways and will permit easy cleaning and maintenance. At the close of each work week, and at the close of each day preceding a holiday, to the extent practical, all such items that have not been used during the work week, shall be removed from the construction area, and stored in Contractor's storage areas.
- e. Refusal to maintain or negligence in maintaining housekeeping can result in the following:
 - i. **Back charges to the Contractor for removal of trash, rubbish, and waste materials from the work area and for clearing aisles; walkways; and work areas of tools, material, and equipment.**
 - ii. **Suspension of the work until a proper level of housekeeping is achieved, as deemed necessary by Phillips.**
- f. All recommendations for improved housekeeping from the Phillips or Project representatives shall be acted upon immediately by the Contract Partner in violation.

2.2 Hazard Communication

- a. It is solely the Contractor Partner's responsibility to implement and maintain a written Hazard Communication Program that will comply with the Globally Harmonized System for Classification and Labeling of Chemicals as stated in OSHA Standard 29 CFR 1910.1200.
- b. Contractor Partners shall submit the following documents to Phillips before they begin work on-site or deliveries are accepted:
 - i. A copy of their written Hazard Communication Program.
 - ii. Safety Data Sheets (SDS) with table of contents.
 - iii. A chemical list of the hazardous substances known to be present on their project sites.



- c. If a Contractor Partner's work with a hazardous material could affect the safety and health of other Contract employees, the Contractor Partner shall coordinate the work with the other Contractors to ensure the safety and health of the Contractors' employees.
- d. Contractor Partners shall be responsible for the safe storage, use, labeling, and disposal of all hazardous material they bring on-site, or for which they are responsible.

2.3 Heat Illness Prevention

- a. Specific protective measures such as acclimatization, necessary shade, fluid intake, and frequent breaks (see Appendix C: Structured Breaks Record) are mandatory steps when outdoor activities create dangerous environmental risks. Additional information is outlined in the Phillips Heat Illness Prevention Policy (see Appendix D).
- b. Contract Partners must train their employees to recognize the signs and symptoms of heat illness. **If workers report or are displaying signs or symptoms of heat-related illness, Phillips supervision must be notified immediately.**
- c. Contract Partners must ensure that cool potable water and electrolyte-containing beverages are provided and easily assessable in the work area.
- d. Enough shade must be provided to accommodate all the workers who will be on break or during meal periods. If shade is limited, employees may rotate their breaks or mealtimes, or additional shade structures must be provided.

2.4 Personal Protective Equipment

- a. It is the responsibility of each Contract Partner to identify the required Personal Protective Equipment (PPE) for their daily work activities. All PPE shall fit appropriately, be in good repair, and be inspected prior to each use and periodically during the shift.
- b. Eye/Face Protection:
 - i. Z.87 safety glasses are required 100% of the time while on the project site.
 - ii. Face shields shall be worn over safety glasses when engaged in grinding, using chain saws, cut-off saws, pressure cleaning operations, and similar work activities that could expose the face to danger from flying material.
- c. Hard Hats:
 - ANSI approved hard hats are required to be worn at all times, including inside the cab of construction equipment.
 - Hard hats will be worn correctly with webbing and bills facing forward. See exceptions for those operations that require welding hoods.
- d. Protective Clothing:



- i. Each Contract Partner employee must be fully clothed in shirts with 4” sleeves and long pants in all work areas. Welders are required to wear protective long sleeve shirts or jackets.
 - ii. Kevlar chaps or pants are required when using chainsaws, concrete chainsaws, axes, chop saws, auto-retracting utility knives, or other cutting tools that have potential to harm the legs.
 - iii. At a minimum, Type 2 reflective shirts or vests shall be worn at all times on Phillips project sites. When conducting night operations (from dusk to dawn) or working with exposure to vehicular traffic at speeds of 50 mph or greater, Type 3 reflective vests or systems shall be worn.
 - iv. Safety vests are not to be worn, but donned immediately upon completion of welding/hot work operations, completion of tree felling operations, or before leaving the safety zone of the grinding operation.
 - v. Fire retardant clothing (FRC) used for protection from electrical exposures shall meet NFPA 70E. FRC must be the outermost clothing worn. If a reflective vest (Type 2) is worn, it must also be FRC since it is part of the outermost clothing.
- e. Footwear:
- Construction-duty safety-toed, 6”, lace up, leather work boots are required to be worn while on the project location.
 - Muck boots are allowed to be worn by workers that are required to work in wet conditions such as mud, water, pouring concrete, and similar as long as the muck boot is safety toed. As soon as the task requiring muck boots is complete, they must be replaced with standard work boots.
 - Metatarsal protection may be required for some work activities, Contract Partners are required to provide to employees as required.
- f. Work Gloves:
- i. Workers are required to wear leather gloves, at a minimum, when performing any task that may cause abrasions or burns to hands.
 - ii. Workers exposed to cutting hazards must wear a minimum Level A5 cut resistant gloves with minimum puncture rating of 4.
- g. Respiratory Protection:
- i. All operations must be evaluated prior to commencing work where airborne contaminants may be present in routine operations or during an emergency to



determine if respirators or intermittent testing are required. (See Appendix E: Phillips Respiratory Protection Standard).

h. Hearing Protection:

- i. Contract Partners are responsible for their own employees and shall provide Phillips with their program elements and identification of competent persons. Where conditions warrant, periodic noise sampling may be required to ensure the correct use and selection of hearing protection.
- ii. Hearing protection is required when workers are exposed to noise levels equal to or greater than 85 dBA TWA.
- iii. Hearing protection will be made available to workers at their work locations and may consist of earplugs, earmuffs, or a combination thereof. Ear caps have a reduced NRR and therefore, shall not be used.

2.5 Concrete & Masonry

- a. All concrete and masonry work performed by Contract Partners that creates respirable dust shall fully and properly implement the engineering controls, work practices, or respiratory protection specified for the task.
- b. When handling wet concrete, impermeable gloves must be worn to provide protection.
- c. A face shield must be worn at the end of the discharge concrete hose or chutes unless there is no splatter potential.
- d. Contract Partners must have vinegar or other neutralizing agent available to clean concrete off of skin.
- e. Ensure concrete buckets equipped with hydraulic or pneumatic gates have positive safety latches or equivalent safety devices to prevent premature or accidental dumping.
- f. Shackles with secondary positive securement must be used to rig to concrete buckets.
- g. Rebar assemblies for walls, piers, columns, and similar vertical structures shall be adequately supported to prevent overturning and to prevent collapse.
- h. Drawings or plans shall be designed by a qualified person, including all revisions, for the jack layout, formwork, shoring equipment, working decks, and scaffolds, and shall be available at the job site.
- i. Form scaffolding must be properly erected with complete guardrail systems and safe access in accordance with the Scaffolding section of this Subcontractor Safety Standard.



- j. When erecting horizontal forms, access must be restricted to only those performing the work. Forms must be adequately supported on all walking surfaces to ensure they cannot become dislodged, resulting in a fall.
- k. Wood or other debris should never be dropped from elevations. If the potential for falling objects exists, the area below the operation must be barricaded.
- l. Concrete pump trucks set up in the vicinity of overhead powerlines must be grounded.
- m. Concrete pump trucks must be set up on stable, level ground, with outriggers fully extended and supported on outrigger pads.
- n. Concrete trucks must be staged to prevent backup on public roadways and to prevent congestion on the project site.
- o. Concrete trucks must have their wheels chocked when parked for unloading.

2.6 Fall Protection

- p. Prior to starting work, each Contract Partner involved in elevated work must provide a written safety plan that includes a project/task-specific fall protection plan. This plan shall contain provisions for fall rescue. This document shall be submitted to the Phillips project superintendent for review.
- q. Fall protection is required 100 percent of the time when workers are exposed to heights of 6 feet or more or above a hazard where fall needs restricted. Variance can be requested at the sole discretion of Phillips Safety Director. Owner/client requirements could be more stringent than this requirement.
- r. Lanyards should be attached to the D-ring on the back of the harness between the shoulder blades. D-rings on the sides or front are not suitable for fall protection and can only be used for positioning, such as climbing vertical rebar or formwork.
- s. Guardrails should not be used as fall-arresting anchor points unless they have been designed for a 5,000-pound load.
- t. When a self-retracting Device (SRD) could go over an edge during a fall, an approved leading edge - self retracting Device (CLASS 2) shall be used. Standard SRLs are not approved for leading edge work.
- u. Employees on a walking/working surface shall be protected from tripping or falling hazards posed by holes using covers that meet the following requirements:
 - i. Covers shall be capable of supporting at least twice the weight of the employees, equipment, and materials that may be imposed on them at any one time.
 - ii. Covers shall be secured when installed to prevent accidental displacement.



- iii. Covers shall be color coded or marked with the wording “HOLE” or “COVER” to provide warning of the hazard.

2.7 Scaffolding

- a. A competent person designated by the Contractor who constructed the scaffold shall inspect the scaffold for compliance with project and OSHA requirements (1926.451) and shall sign his/her name to the tag before allowing anyone to access the scaffold.
- b. All scaffolds shall be marked with one of the following tags (Figure 21):
 - i. Green Tag--This scaffold was built to meet OSHA scaffold regulations; it is safe to use.
 - ii. Yellow Tag--This scaffold does not completely meet OSHA scaffold regulations and informs workers that a fall protection device is required while on a scaffold with incomplete guardrails or deck openings.
 - iii. Red Tag--means DO NOT USE. The scaffold is being dismantled, not yet completely erected, or for some reason is not safe and shall not be used.
- c. A competent person designated by the Contractor who constructed the scaffold shall inspect the scaffold for compliance with project and OSHA requirements (1926.451) and shall sign his/her name to the tag before allowing anyone to access the scaffold.
- d. Any scaffold that is not tagged shall not be used.
- e. Debris shall not be allowed to accumulate on scaffolds, and only the material essential to the work shall be on the scaffold. Scaffolds must be cleaned of debris daily.
- f. Scaffolds used to store materials must be designed to support material and workers.
- g. Ladders or makeshift devices such as blocks shall not be used on top of scaffold platforms to increase the working level height.
- h. Scaffolds shall not be erected, used, dismantled, altered, or moved such that they, or any conductive material handled on them, would be closer to exposed and energized lines than the required minimum clearance distances.
- i. Access ladders must extend 36” above the platform being accessed, or equivalent safe access shall be provided. Scaffold bracing shall not be used for access or climbing.
- j. All scaffold guardrail systems must meet the design/performance requirements set forth by OSHA standards.
 - i. Where there is a hazard of tools, materials, or small objects falling from the scaffold and striking workers below, Workers must be protected from the hazard.



2.8 Aerial Lifts

- a. Aerial lift operators must be trained and qualified. In addition, all occupants must have fall protection training.
- b. Equipment must be inspected per manual prior to use.
- c. Elevating work platforms on a Phillips site must meet American National Standards Institute (ANSI) standards.
- d. Operators shall follow operating and maintenance instructions and recommendations of the manufacturer. Additionally, the manufacturer's operating manual must be located on the equipment and available to the Operator.
- e. Ensure the area surrounding the work platform is clear of personnel and equipment before lowering the platform.
- f. Do not use elevating work platforms to hoist materials that would otherwise require lifting equipment; only tools and materials needed for the task are permitted on the platform.
- g. Operators must never override hydraulic, mechanical, or electrical safety devices.
- h. Aerial lifts shall not be operated in severe weather.
- i. Unless the manufacturer stipulates, employees shall wear approved fall protection systems consisting of a personal fall arrest system with the 4' lanyard or a leading-edge self-retracting lanyard anchored to the equipment's designated anchorage points.

2.9 Ladders & Stairways

- a. A ladder, stairway, ramp, or sloped backfill or embankment must be provided for safe personnel access when there is a break in elevation of 19" or more.
- b. Only Type 1 (Industrial) fiberglass portable ladders are acceptable in addition to limited use job-made wooden ladders.
- c. A competent person must always inspect the ladder prior to use. A ladder inspection tag or sticker shall be provided on portable ladders to document monthly inspections. If the ladder is damaged in any way, it must be removed from service and tagged and be taken offsite.
- d. Work will be performed while facing the ladder. Three-point contact must be maintained while ascending and descending ladders. Never carry tools or materials in your hand, use a rope and/or approved container to raise tools and materials.
- e. The area on and around ladders, stairways, and ramps must be maintained free of trip hazards such as cords and slippery conditions to include accumulations of mud or ice.



Temporary stairs and ramps must have slip-resistant material applied to the surface such as slip resistant tape, paint, or other material.

- f. When setting up a step ladder:
 - i. The spreader bar must be locked, and all four (4) legs must be firmly in contact with a level, solid surface. At no time shall a step ladder be used in the folded position.
 - ii. Do not use the top or top step of a step ladder.
 - iii. Step ladders may not be used to access another level.
- g. When positioning an extension ladder:
 - i. Ensure proper 4:1 angle is met. The bottom of the ladder should be one-quarter of the ladder's working length away from the wall.
 - ii. The top of the ladder must extend at least 3' above the access point.
 - iii. The ladder must be secured at the top. If needed, the ladder must also be secured at the bottom.
- h. Job-built ladders are permitted but must be constructed in accordance with OSHA standards.
- i. All stairways shall be constructed in accordance with OSHA standards, and all tread pans must be filled, landings complete, and handrails in place prior to workers being allowed to access them. In the absence of these requirements, stairways are to be barricaded to prevent use.
- j. Ramps, sloped backfill, or embankments being used for access and egress shall be determined suitable for employees when installed at a maximum of 20°.

2.10 Trenching & Excavation

- a. Before Contract Partners commence work on any trench or excavation, they shall first submit a completed Excavation/Penetration Permit (see Appendix F) to Phillips site supervision. The completed permit shall be submitted far enough (at least 24 hours) in advance to allow Phillips ample time to review the information. After review, the required parties shall sign the permit and return a copy of it to the Contract Partner. The Contract Partner may commence work after receiving the signed permit.
- b. The Contract Partner shall appoint a competent person as defined in OSHA Standard 29 CFR 1926 Subpart P and identify them in the Designated Competent Person List. The Competent Person will fill out the permit and monitor all trench and excavation work. Inspections are required to be performed and documented by the competent person on excavations, adjacent areas, and protective systems. The inspections shall be documented



on the Excavation & Trenching Checklist (see Appendix G) and are to be made available to Phillips upon request. The inspection must be performed in the following circumstances:

- i. Daily, before employee entry.
 - ii. As needed throughout the shift, such as when trenching activities progress.
 - iii. After a rain event.
 - iv. After any other hazard increasing occurrence.
- c. Contract Partners shall contact the One Call Center in the state they are working by dialing 811 or making an online request. The locate request must be made according to state One Call laws including the timelines established by each state for the advance notice required for locates and ticket renewals. This must be completed regardless of locates being performed by Phillips' other Contract Partners.
- d. Contract Partners shall perform a thorough review of the drawings and assess the area to be disturbed to ensure there are no indications of utilities by looking for structures such as electrical boxes, concrete structures, overhead lines, irrigation or water valve boxes, gas mains, etc. If items are discovered the Phillips team must be notified for next steps.
- e. Until the utility location has been positively identified, potholing by non-invasive means shall begin at the outside edge of the 30-inch tolerance zone and work toward the expected utility to find and expose it or determine it is not present in the excavation area. Utilities must also be potholed at a minimum of every 25' horizontally and at least 12 inches below the intended excavation depth.
- f. Shoring, shielding, or sloping methods must be employed for all excavations of 4' of depth or greater.
- g. When using sloping as the protective system, slopes may be no steeper than 1 ½: 1 (34 degrees).
- h. Excavations 20' deep or greater require that the protective system be designed by a registered professional engineer or be based on tabulated data prepared and/or approved by a registered professional engineer in accordance with 1926.652(b) and (c).
- i. Trench boxes shall be used per the manufacturer's tabulated data or professional engineer's directions.
 - ii. Employees shall not leave the protection of the shoring system at any time.
 - iii. Tabulated data must be onsite at all times when a trench box or similar method is utilized.



- i. Where workers or equipment are required or permitted to cross over excavations, walkways must be provided. Guardrails must be provided where walkways are 6' or more above a lower level.
- j. Workers shall not walk to the edge of a shoring system that is 6' or more in depth without the use of fall protection.
- k. Employees must remain a safe distance away from the edge of an unprotected excavation to ensure that soil does not sluff off creating a fall hazard.
- l. Ramps, stairs, ladders, or other safe means of egress shall be located in excavations that are 4' or more so there is no more than 25' of lateral travel for workers in accordance with OSHA and the Ladders & Stairways section of this document.
- m. Warning lines and/or barricades will be used for all excavations not clearly visible, or that are located near roadways and mobile equipment travel ways.
- n. Workers will not be permitted to work directly beneath suspended loads handled by lifting or digging equipment. Exposure must be minimized to the extent possible and shall be performed following the Phillips Personnel Working Near Equipment Standard (see Appendix H).
- o. Where oxygen deficiency (atmospheres containing less than 19.5%) or a hazardous atmosphere exists or could reasonably be expected to exist, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4' in depth.

2.11 Confined Space Entry

- a. Contract Partners shall provide a confined space entry program, designed to comply with 29 CFR 1926 Subpart AA, to Phillips for review prior to commencing any confined space activities.
- b. All Contract Partner employees shall be trained, and training documents must be submitted to Phillips prior to commencing work.
- c. It is the responsibility of the Contract Partner's Confined Space Entry Supervisor who has been trained and meets the definition of a competent person, to evaluate the space, classify the space, complete associated documents, and ensure all necessary controls are implemented, and obtain atmospheric testing before workers enter the space
- d. OSHA Alternate Entry procedures are not recognized by Phillips. The space will be determined to be a non-permit required confined space (NPRCS) or treated as a PRCS with all required controls implemented.
- e. If the space is determined to be an (NPRCS), supervision must complete the Confined Space Pre-Entry Checklist (see Appendix I).



- f. Before any entrance cover to a confined space is removed, it shall be determined that there are no temperature or pressure differences, or other hazardous conditions that may injure the workers removing the cover. Once removed, the opening shall be immediately guarded by a railing, temporary cover, or other temporary barrier that prevents falls into the space.
- g. Air monitoring equipment must be calibrated and bump tested per manufacturer's requirements.

2.12 Electrical Safety

- a. Only qualified electricians may work on electric circuit parts or equipment that has not been de-energized. Such employees must follow all applicable OSHA and NFPA requirements. Work on energized electrical conductors or circuit parts that are not placed in an electrically safe work condition shall be considered energized electrical work and shall be performed by written permit only.
- b. Every effort shall be made to deenergize equipment before work, should this not be possible, and only after consultation with Phillips management will written permit process be granted
- c. All portable generators must be set up on the ground, or a means of adequate grounding must be established and tested. For vehicle mounted generators, including welders, the frame of the generator must be bonded to the vehicle frame.
- d. Flexible extension cords (minimum 12AWG) shall be inspected daily prior to use and protected from damage. Cords displaying damage, missing ground pins, broken strain relief or exposed wires are to be immediately removed from service and removed from work area.
- e. Flexible cords will be used only in continuous lengths (no daisy chain) without splice or tap and without any field repairs
- f. All extension cords shall be plugged into one of the following:
 - i. A GFCI outlet,
 - ii. A GFCI adapter used between the wall outlet and cord plug, or
 - iii. Have a GFCI built into the cord.
- g. The GFCI must be tested before each use using the test button provided.

2.13 Lockout / Tagout

- a. All Contract Partners must submit their energy control plan and training documentation to Phillips project management for review before any employee performs servicing or maintenance on a machine or equipment where the expected or unexpected/unplanned energizing, start up or release of stored energy could occur.



- b. Phillips mobile equipment LOTO program(see Appendix J) must be followed.
- c. Appropriate lock out devices such as locks, tags, chains, valve covers, or other hardware shall be used to isolate, secure, or block machines and equipment from the identified energy source.
- d. LOTO devices shall be singularly identifiable and meet the following requirements.
 - i. Capable of withstanding the environment to which they are exposed for the maximum time that exposure is expected.
 - ii. Be standardized within the project by color to distinguish them from other locks and shall not be used for any other applications.
 - iii. Tags shall contain a “Danger—Do Not Operate” message.
 - iv. Personal locks shall be individually keyed with the only key in possession of the authorized person who owns the lock.
 - v. Locks and tags are to identify the name of the authorized person placing them and the date on which they were placed.
- e. Tags are not permitted in place of locks except where a machine or process is not capable of being locked out. In this case, the following is required:
 - i. The tag shall be located as close as possible to the device, in a position immediately obvious to anyone attempting to operate.
 - ii. In addition to the tag, another control must be implemented such as a key controlled by an employee performing the work, or a wire disconnected.
 - iii. Tags shall be attached with a single-use nylon cable ties of sufficient strength that cannot be removed without assistance of a cutting device.
- f. Removal of locks and/or tags by anyone other than the authorized individual is a serious safety violation resulting in immediate removal from the project.

2.14 Fire Protection / Prevention

- a. Contract Partners are responsible for fire protection throughout all phases of construction.
- b. All fires, regardless of size, shall be reported immediately to Phillips site supervision.
- c. Smoking shall be restricted to safe areas where a fire hazard does not exist. Tobacco products must be discarded safely. Smoking shall be prohibited in buildings and temporary structures, such as jobsite trailers and Conex boxes and at least 50’ away from refueling operations.



- d. “No Smoking” signs shall be conspicuously posted at all storage locations of flammables and/or combustibles, including Conex locations where flammable materials or fuel powered equipment is stored.
- e. Potential ignition sources must be identified on project sites to ensure combustibles have been removed or protected
- f. Storage rooms and Conex boxes shall have adequate ventilation to prevent a build-up of fumes.
- g. An ABC fire extinguisher shall be in the following project locations:
 - i. Equipment and transport vehicles
 - ii. Jobsite trailers, Conex boxes, storage trailers
 - iii. Fueling areas
- h. Additional fire extinguishers shall be added in areas where welding, cutting, burning, or other heat-producing activities are taking place.
- i. Extinguishers on site shall be inspected and documented by a competent person monthly. In addition, extinguishers on site shall be inspected, serviced, and certified at least annually by a competent third party.
- j. Damaged or discharged extinguishers must be tagged and immediately removed from service and replaced.
- k. The location of outdoor storage tanks shall be acceptable to Phillips site supervision before installation.
- l. Portable fuel tanks shall not be closer than 20’ from any building, temporary structures, such as jobsite trailers and Conex boxes and labeled according to the GHS standard.
- m. Fuel dispensing areas shall be separated from other operations by 25’ and be in a well-ventilated area
- n. Small portable quantities of flammable and combustible liquids must be stored and dispensed from a UL-listed metal safety can with a spring-loaded lid with spark arrestor.
- o. All fuel storage tanks must be properly grounded with a lug and ground strap, attached to a ground rod 6’ or longer, at a minimum
- p. During fueling, the tank must be bonded to the equipment.
- q. A suitable fire extinguisher must be posted at the fueling station, a minimum of 25’ away but no more than 75’ away from the tank.



2.15 Tools & Small Equipment

- a. Personnel must operate and maintain and inspect tools in accordance with manufacturer's recommendations. Only accessories specifically supplied or recommended by the manufacturer shall be used.
- b. Tools and small equipment with visible defects or missing guards/safety features shall be immediately removed from service and tagged "Do Not Operate" to prevent use.
- c. Fence posts, chisels, punches, ground rods, ground stakes, pipes, and others shall be held with suitable holders (not with the hands) while being struck by another worker.
- d. Tools shall not be thrown from one level to another or from worker to worker. Tools that must be raised or lowered from one elevation to another shall be placed in tool buckets or firmly attached to hand lines.
- e. Tools or equipment shall never be placed unsecured on elevated surfaces or at the edge of a trench or similar area where they could become dislodged and strike workers below. Controls such as tool lanyards, toe boards, hole covers or maintaining a distance for tools and equipment 6' from any edge should be implemented.

2.16 Barricading & Signage

- a. Appropriate physical barricades, such as orange safety fence, chain link, or jersey barriers, are erected where it is determined that greater protection than barricade tape is required.
- b. When physical barricades are used to restrict access, additional signage must be installed to communicate the reason for the barricade, such as an open trench or closed sidewalk.
- c. Visual barricades, such as barricade tape, shall be used as a control measure:
 - When there are no other practical control measures available.
 - As an interim measure until the hazard is no longer present.
 - To supplement other higher-level control measures.
- d. Yellow/Black barricade tape serves as a caution to indicate that a potential hazard exists. Workers may enter without permission once the hazard has been assessed and it is determined to be safe to do so.
- e. Red barricade tape indicates DANGER and that a potential serious hazard may be present. No employee, other than those assigned to work inside a RED barricade, may enter without first obtaining permission from the persons who installed the barricade.
- f. Barricade tape must be woven or reinforced to ensure durability and reduced maintenance. Additionally, Red or Yellow plastic chain can be acceptable.



- g. Barricade tape must be erected in a secure and neat manner that will maintain a height of between 39-42 inches from the floor or ground surface. The barricade shall also be completely enclosed and have enough support to maintain the proper height requirement.
- h. The barricades shall be erected far enough back from the hazard to allow for adequate warning and protection. The barrier shall be constructed so that it will stand against adverse weather conditions and construction traffic.
- i. It will be the responsibility of the Contract Partner erecting the barricade tape to maintain it for as long as the hazard is present. Barricades shall be removed completely once the work is complete and all attempts shall be made to have the area safe/secured by the end of the shift.

2.17 Welding & Cutting

- a. Prior to any hot work activities, a Hot Work Permit (see Appendix K) must be completed.
- b. When welding or cutting in elevated positions, employees shall take precautions to prevent sparks or hot metal from falling onto people or flammable material below.
- c. Suitable fire extinguishing equipment shall be immediately available at all locations where welding and cutting equipment is used and a trained fire watch shall be assigned the responsibility for monitoring during and a minimum of 30 minutes following hot work activities to identify any potential fire-related concerns.
- d. Hot work activities are prohibited within 35' of combustible materials unless additional controls such as fire-resistant blankets are utilized.
- e. All welders and cutters shall wear protective equipment as required by the PPE assessment.
- f. Welding operations must be shielded by screens to protect employees and other personnel whom could be exposed to flash burns.
- g. While welding or cutting, workers shall use adequate ventilation or approved respiratory protection equipment.
- h. If the electrode holders are to be left unattended, the electrodes shall be removed, and the holders placed in a position so they cannot make electrical contact with employees or conducting objects.
- i. Turn off the power supply to the equipment whenever the arc-welding machine operator leaves or stops work for any length of time, or when the arc-welding machine is moved.
- j. The electric welding machine shall be grounded in accordance with the manufacturer's specifications before use.



- k. Ignite torches only by friction lighters or other approved devices. Do not use matches, flame lighters, or hot work to ignite torches.
- l. Secure gas cylinders in an upright, vertical position, whether in service or storage, to prevent falling. Place a restraint device within the upper third of the cylinder. Use a suitable cylinder truck (cart), chain, or another steadying method to prevent cylinders from being knocked over while in use or during storage.
- m. Cylinders are considered in “storage” when they are not in use for 24 hours. When in storage, valve protection caps must be installed, and oxygen and fuel cylinders must be separated by a distance of 20’ or a firewall at least 5’ tall having a fire-resistance rating of at least ½ hour.
- n. Oxygen or fuel gas cylinders shall not be taken into confined spaces.
- o. Approved backflow check valves shall be used on gas welding rigs in both gas and oxygen lines.

2.18 Cranes, Derricks, Hoisting Equipment

- a. Annual crane certifications must be current and available on site prior to commencing work.
- b. All crane operators must be certified by an OSHA recognized certifying agency and have a documented evaluation that ensures qualification by a demonstration of the skills and knowledge necessary to operate the equipment safely and the ability to recognize and avert risks associated with the operation. Contract Partners must submit these documents prior to commencing crane operations.
- c. The crane operator will perform daily and monthly inspection of all cranes, rigging, safety devices, operational aids, and other components. These inspections will be maintained for review by Phillips. The crane will be tagged out of service if any defective item(s) is noted until repairs are completed by a qualified individual.
- d. Only qualified riggers/signal persons will perform hoisting, rigging and signal person activities. Evidence of this training must be provided to Phillips prior to commencing work.
- e. Outriggers must be fully extended or extended to designated points listed on the load chart. If outriggers are not extended to a point designated by the load chart, the on-rubber load chart must be utilized.
- f. Before deploying, the crane signal person must be in position to observe the movement of the outriggers as they are extended and ensure that personnel maintain a safe distance away from the operation.
- g. In hazardous locations, outriggers must be marked with cones to ensure their visibility, for example near roadways, driveways, congested worksites, etc.



- h. Outrigger and/or crane pad requirements:
 - i. Minimum size must be based on actual crane, load, accessory, rigging combined weight, AND the ground conditions.
 - ii. Must be perpendicular (90°) to the jacks when under load, not tilted or slanted.
 - iii. For timber pads, good quality timbers must be used. Timber pads must be installed with timbers as tight and level as possible to reduce the potential for trips and falls.
 - iv. For crane mats made of other materials (steel, reinforced polymers, etc.), refer to manufacturer's specification on bending strength and bearing capacity.
- i. Use of cellular phones or other devices that may distract the operator are prohibited while the crane is in operation or movement.
- j. All critical lifts shall be developed by a qualified person and submitted to Phillips for review prior to commencing work. Phillips defines a lift as a critical lift if any of the following criteria is met:
 - i. Any lift that requires more than one (1) crane, or a crane and other equipment.
 - ii. Loads exceeding 75% of the crane's rated capacity.
 - iii. Lifting of personnel.
 - iv. Load suspension above rigging personnel.
 - v. Loads not in view of the crane operator (blind lift).
 - vi. Loads of exceptional value.
 - vii. Loads that, if damaged, would have a significant impact on the schedule.
 - viii. Loads that have the potential for becoming unstable during rigging.
- k. Operator shall not leave the controls while a load is suspended.
- l. No employees are permitted to be underneath a suspended load or in the load's fall zone.
- m. Accessible areas within the swing radius of the rotating superstructure counterweight of a crane must be barricaded with reinforced red danger tape or other similar means. The area inside the swing radius must be free of material such as water coolers, tools, or any other miscellaneous storage.
- n. All MAD charts for the type of work being performed must be adhered to. Insulating shields, or other means of energy control, are required for all overhead lines where cranes could potentially come within 20' of the lines. Coordinate installation of shields with local utility.



- o. No employees other than operator are to be on cranes, cabs, tracks, or outriggers while crane is being used.

2.19 Rigging

- a. Rigging tasks must only be performed by a qualified rigger and under the supervision of a competent rigger.
- b. All lifting devices must comply with the American Society of Mechanical Engineers (ASME) B30 Standards.
- c. Rigging and hardware made in China shall not be used and/or purchased.
- d. Rigging equipment shall not be loaded beyond its rated capacity.
- e. Before each use, all slings, fastenings, and attachments shall be inspected for damage or defects. Damaged or defective equipment shall be immediately removed from service. Periodic, documented inspections on such equipment are also required.
- f. When a potential for rigging damage due to sharp edges, abrasion, or other similar conditions exists, engineered sling protection (softeners) must be used.
- g. A sling shall not be pulled from under a load when the load is resting on the sling.
- h. No point loading of Hooks.
- i. No free rigging on forks, buckets, or in any other configuration, all loads must be securely attached with shackles or hooks.
- j. The chain or hoist cable for chain falls, come-a-longs, or other such devices shall not be wrapped around a load and used in place of a sling unless specifically designed for that purpose.
- k. Tag lines shall be used on all loads.

2.20 Mobile Construction Equipment

- a. Only qualified and authorized personnel will operate mobile construction equipment. All such equipment will be operated safely and within safe speed limits. Seat belts are mandatory at all times.
- b. Prior to commencing any mobile construction equipment activities, Phillips must be provided with documentation of current operator qualifications specific to the equipment used.
- c. For certain certifications including but not limited to forklifts, aerial lifts, etc., proof of certification and evaluation must be submitted to Phillips before commencing work.



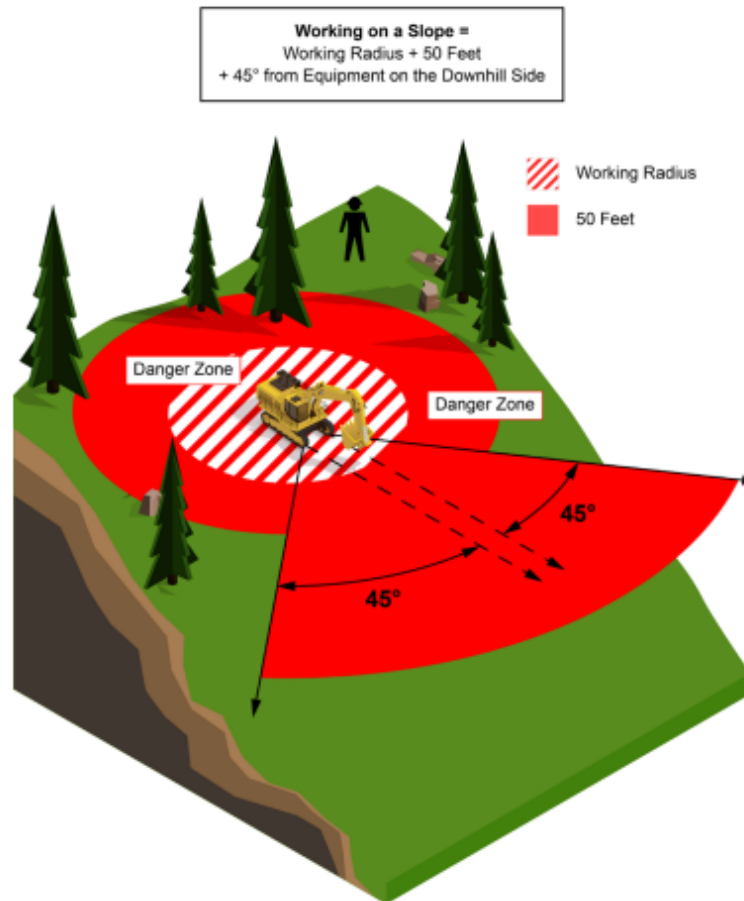
- d. All mobile construction equipment shall be inspected prior to each use. Inspections shall be documented and maintained. If operators change during the day, the new operator shall conduct their own inspection of the equipment and complete the Equipment Operator Checklist. Contract Partners shall provide Phillips with a similar checklist for approval or use the Phillips checklist (see Appendix L: Daily Equipment Report).
- e. Manufacturer's operation and safety manuals must be present and/or immediately available on the equipment.
- f. A Spotter must be assigned when a Driver/Operator does not have a full view of the working area. This includes, but is not limited to, the following conditions:
 - Backing vehicles or equipment in tight or enclosed spaces.
 - Backing or maneuvering trailers.
 - Loading equipment onto trailers.
 - Traveling with loads
 - Entering a vehicle or equipment in a congested work area.
 - Operating in areas of poor visibility
 - Operating in proximity to ground obstacles or structures
 - Moving equipment under overhead utilities
 - Areas where pedestrians, employees or other contractors must be in the work area.
 - When there are lateral, overhead, or other obstructions that impede the operation.
 - Excavating to locate utilities.
 - Rotating the cab of excavators or turning the equipment where the operator does not have a clear line of sight.
 - Other situations in which hazards to personnel, equipment, or structures could be reduced or eliminated.
- g. Supervisors must ensure that Spotters are trained prior to assignment and both Driver/Operator have a clear understanding of the signals to be given.
- h. If spotter is not present or loses visual or verbal communication between themselves the operation is to cease immediately until spotter returns or communication is reestablished.



- i. All motorized equipment must have an audible backup alarm as well as a warning horn for forward movement. Equipment designed for bi-directional operation, such as an excavator, must have an alarm that sounds when moving in either direction. Audible alarms and horns are NOT to be disabled.
- j. Use of cellular phones or other devices such as iPads are prohibited for all types of mobile construction equipment when in use.
- k. Personnel shall not ride on mobile construction equipment except where a seat and seat belt is provided.
- l. The use of utility terrain vehicles (UTVs) must be approved by the Phillips project superintendent. When approved, evidence of training in the use of the UTV must be provided. All-terrain vehicles (ATVs) without ROPS are prohibited.
- m. UTVs must have the wheels chocked at all times when parked.
- n. If personnel working near equipment is required, a minimum separation distance between personnel on the ground and equipment in operation must be maintained. When applicable, consideration must be given to the equipment's swing radius and the equipment's loads. Minimum clearance distances established include, but may not be limited to the following:

DISTANCES FOR GROUND PERSONNEL*	
General Clearance	25' or as Determined by JSA
Dumping Operations	2x Bed length
Felling Operations	2x Height of Tree
Mechanical Felling	2x Height of Tree
Feller Buncher	300' (more in some cases)*
Grinding Operations	300'**
Rock Crushers	50'
Equipment w/Extendable Boom, Rotating Counterweight, Grapple, etc.	See Graphic A (next page)
Working on Slopes	See Graphic B (next page)
** If greater distances are mandated in accordance with the manufacturer's instructions, follow the more stringent guidelines unless a hazard assessment determines it is a greater hazard. **	

- o. All operations on slopes mandate a clearance distance from the equipment to equal the working radius of the equipment, plus 50' and personnel shall be prohibited from working within a 45° angle from either side of the equipment on the downhill side.



- p. If the nature of the task requires personnel to be within the above minimum established clearance distances, the Contractor Partner shall develop task-specific procedures to ensure the protection of personnel working within the hazard zone. (See Appendix H: Personnel Working Near Equipment Standard: Section 2.1 f).
- q. Clearance must be maintained from overhead power lines and other utilities such as communication lines. This is accomplished by instituting visible warning devices to assist Drivers, Operators, and Spotters in ensuring the applicable Minimum Approach Distances (MAD), based on both the lines' voltage and type of work being performed, are maintained.

2.21 Motor Vehicles

- a. All Contract Partner-owned or leased motor vehicles that are on the project must be road ready with functioning lights, signals, mirrors, horns, etc. Where additional lighting such as flashing lights are required, the Contract Partner is responsible for purchase and use of such lighting. Company name must be visible on all Contract Partner owned and leased vehicles.
- b. Personal owned vehicles will be prohibited from the construction site and parked in designated areas only.



- c. Personnel are prohibited from riding in the bed, on the tailgates, or on the sides of trucks or other equipment. All loose or heavy materials, supplies, and tools shall be secured.
- d. Drivers of commercial motor vehicles must be properly licensed with appropriate endorsement, compliant with hours-of-service regulations, compliant with driver fitness regulations (drug and alcohol testing and current DOT physical), conduct documented pre and post trip inspections, and follow all applicable FMCSA rules and regulations.

2.22 Logging Operations

2.22.1 Site Clearing General Requirements: Section 5.37.2.1 of EH&S Manual

- a. Contract Partner shall provide qualified supervision on the project with knowledge of the specific type of work being performed for the complete duration of all activities.
- b. Qualified Safety Professional or designated Subject Matter Experts (SME) may be required on specific projects and will be assigned as needed.
- c. Due to the potential for soil disturbance due to heavy equipment operations associated with site clearing and tree work, the location of underground utilities is required on these projects and must be performed in accordance with the Utility Locates Section 2.3.1 Phillips Excavation & Trenching Standard (see Appendix M).
- d. Supervision with input from employees shall properly plan and communicate all aspects of the work through both the JSA and the development of a Site Control Plan by following the Phillips Hazard Recognition, Evaluation and Control Standard (see Appendix N).
- e. Phillips must be notified prior to roadway and sidewalk closures to ensure closures are properly planned and hazards controls. Road closures shall be performed by following the Phillips Roadway Work Zone Procedure. (See Appendix O: Phillips Temporary Traffic Control (TTC) Standard).
- f. Contract Partners must assess the travel and working paths associated with the project to evaluate the safest path of travel, egress paths, etc. to prevent slips, trips and falls, employees Contract Partner may need to communicate or visually mark specific hazards.

2.22.2 Clearing Equipment: Section 5.37.2.2.1 of EH&S Manual

- a. **All equipment involved in clearing operations shall be equipped with clearing packages to include front, side and rear guards.**
- b. Backhoes involved in clearing operations must have guards installed over the hydraulic hose housing areas. Guards work well in preventing, trash, brush and leaves from entering the house area but must be cleaned out regularly. Promptly repair or replace all damaged screens and guards designed to prevent debris buildup.
- c. Operators shall look for worn hoses, leaks in lines, and loose fittings 3x daily (morning, noon, and night) as applicable. Hose leaks shall be repaired immediately, if the machine is being used to chunk fires or feed burn pits.



- d. Keep machines clean from grease and oil buildup. Use a steam cleaner on the equipment as necessary.

2.22.3 Mechanical Felling: Section 5.37.2.7 of EH&S Manual

- a. All utilities must be positively identified in the work area to ensure that felling operations do not cause damage.
- b. **All heavy equipment used for tree felling and handling will be equipped with factory installed ROPS and FOPS with enclosed cabs and clearing packages installed.**
- c. A first aid kit and fire extinguisher will be placed in all equipment being used for tree clearing operations.
- d. To maintain stability, the equipment must be operated within limitations defined by the manufacturer.
- e. Trees are to be inspected prior to being felled for rotten or dead limbs, wires, and any other hazardous conditions.
- f. Prior to mechanical felling operations, employees shall review the surrounding area, the shape of the trees, wind force and direction, weak spots, the location of other employees in the area, and potential electrical hazards.
- g. **At no time shall any Operator leave a tree lodged.**
- h. At no time shall an employee walk beside a piece of equipment that is dragging or winching a tree.
- i. Employees shall walk at a safe distance behind equipment and remain clear of tree winched/recoil areas.
- j. Inspect all cables and hooks for wear. Stretched hooks and frayed cables will be taken out of service and replaced.
- k. Employees shall not be positioned on the downhill side of trees being felled or heavy equipment.

2.22.4 Manual Felling: Section 5.37 of EH&S Manual

- a. Contract Partners must provide for all Sawmen and tree Fellers documentation of their qualifications and Training prior to performing general cutting or felling activities.
- b. Chainsaws are not to be left unattended with the engine running.
- c. Chainsaw operators working in the same area must maintain a minimum distance of 2x the height of the tree or 2x the drop zone distance they are felling from personnel, as well as equipment with the exception of mechanical assist.



2.22.5 Burning Operations

- a. Burn permitting and plan must be obtained from all applicable agencies and municipalities as well as from Phillips.
- b. Open burning checklist (see Appendix P) must be complete.
- c. Open and pit burning will adhere to Phillips SOP for burning and be overseen by Phillips supervision.

2.23 Environmental Controls

- a. When adding petroleum products to tanks, vehicles or equipment, measures shall be taken to ensure any accidental spill or release of petroleum products does not penetrate ground surfaces or cause environmental contamination. Petroleum products include but are not limited to fuel, transmission fluids, hydraulic fluids, motor oils, and anti-freeze.
- b. Bulk fuel on site may be stored in either a fuel truck or in a double-lined or single wall tank. Bulk fuel stored in a single-walled tank must be provided with secondary containment that can contain 110% of the tank's capacity. Bulk fuel stored in a fuel truck must be provided appropriate containment or equipment to prevent a discharge.
- c. Tanks and equipment shall be protected by barriers or other means to prevent accidental contact. The off-loading area shall be easily accessible to the bulk truck driver, away from any utilities and in clear line of sight of the receiving vessel.
- d. Transfer hoses shall not be left unattended for any reason during fuel transfer operations.
- e. Contract Partners will not fuel vehicles within 50 feet of storm drains, open ditches, water bodies, or wetlands. Nozzles used in vehicle and equipment fueling must be equipped with an automatic shutoff to control drips and releases.
- f. Spill containment equipment (e.g., boom, skimmer, sorbent, bio-sorbent, funnels, catch pans) shall be readily accessible for deployment during fueling and servicing operations.
- g. **All spills shall be immediately reported to Phillips.**
- h. Rainwater accumulated in secondary containment areas should never be pumped to the ground. Accumulated rainwater should be pumped from containment into containers for disposal following the material disposal section below.



3 DELIVERABLES

3.1 List of Deliverables Pre-Mobilization

- a. Competent Person Form
- b. Individual Employee Qualification/Training Document
- c. Safety Director Contact Information – Email and Phone Number
- d. Competent Person Contact Information – Email and Phone Number

3.2 List of Deliverables Post-Mobilization

- e. Incident Investigation Reports and Associated Paperwork (i.e. Post Incident D&A Testing, Permits, Inspections, Training Records, etc.), including adherence to the following reporting timelines:
 - Initial Notification – As soon as possible
 - Initial Report – Within 2 hours of the incident
 - Written Report and Investigation – Within 24 hours of the incident
- f. Toolbox Talks - Weekly
- g. Equipment Inspections – Beginning of next shift
- h. Daily Job Safety Analysis (JSA)/Site Control Plan – Prior to commencement of work
- a. Hot Work Permits – as applicable

APPENDIX

REFERENCED FORMS



PHILLIPS

DESIGNATION OF COMPETENT PERSONS

Project Number: _____ Project Name: _____ Date: _____
 Site: _____ Contractor: _____ Filed by: _____

OSHA Standard	Applies to Contractor		Designated Competent Person
	Yes	No	
Subpart C - General Provisions			Employee Name
1926.20 General Safety			
Subpart D - Health and Environmental Controls			
1926.53 Ionizing Radiation			
1926.54 Nonionizing Radiation			
1926.55 Gases, Vapors, Fumes, Dusts, Mists			
1926.57 Ventilation			
1926.59 Hazard Communication			
1926.62 Lead			
Subpart E - Personal Protective Equipment			
1926.101 Hearing			
1926.103 Respirator Protection			
Subpart H - Materials Handling, Storage			
1926.251 Rigging Equipment for Material Handling			
Subpart J - Welding and Cutting			
1926.354 Welding, Cutting, and Heating			
Subpart K - Electrical			
1926.404 Wiring Design and Protection			
Subpart L - Scaffolding			
1926.451 Scaffolding			
Subpart M - Fall Protection			
1926.502 Fall Protection Criteria and Practices			
1926.503 Training			
Subpart N - Cranes, Derricks			
1926.550 Cranes and Derricks			
1926.552 Hoists and Elevators			
Subpart O - Motor Vehicles and Equipment			
1926.601 Motor Vehicles			



OSHA Standard	Applies to Contractor		Designated Competent Person
	Yes	No	Employee Name
Subpart P - Excavations			
1926.651 Specific Excavation Requirements			
1926.652 Requirements for Protective Systems			
Subpart Q - Concrete and Masonry Construction			
1926.701 General Requirements			
1926.703 Cast-In-Place Concrete			
1926.705 Lift-Slab Operations			
Subpart R - Steel Erection			
1926.752 Bolting, Riveting, Fitting-Up, Etc.			
Subpart S - Tunnels, Shafts, Caissons			
1926.800 Tunnels and Shafts			
1926.802 Compressed Air			
Subpart T - Demolition			
1926.850 Preparatory Operations			
1926.852 Chutes			
1926.859 Mechanical Demolition			
Subpart U - Blasting and Use of Explosives			
1926.900 General Provisions			
1926.901 Blaster Qualifications			
1926.911 Misfires			
Subpart V - Power Transmission and Distribution			
1926.955 Overhead Lines			
1926.957 Construction in Energized Substations			
Subpart X - Stairways and Ladders			
1926.1053 Ladders			
1926.1060 Training Requirements			
Subpart Z - Toxic and Hazardous Substances			
1926.1101 Asbestos			
1926.1102 thru 1926.1148 Toxic and			
Hazardous Substances			



Report Date: _____ Job Number: _____ Job Name: _____

Job Location: _____

Key Word Incident Description: _____

ACCIDENT CLASSIFICATION

☐ Injury or illness | ☐ Property damage | ☐ Motor vehicle involved | ☐ Equipment involved

GENERAL INFORMATION

Date	Time of Accident	Location of Accident	Body Part	Type of Injury	Source of Injury

PERSONNEL INVOLVED IN INCIDENT

Name (Last, First, Middle)	Date of Hire	Age	Employee #	Title	Injured?

PREVIOUS DISCIPLINARY ACTION (*Reconcile with HR*)

Name (Last, First, Middle)	Employee #	Explanation of Previous Action

HIERARCHY OF SUPERVISION

Regional Manager: _____

Superintendent: _____

Foreman: _____

Project Manager: _____

Supervisor: _____

Safety Professional: _____

FIT TODAY AND FITNESS IN TASK

Was the employee evaluated through Phillips's FIT Program? ☐ Yes ☐ No

Did the investigation determine whether there was any cause or contributing factor related to the "FIT TODAY" program as a result of the incident? ☐ Yes ☐ No

If YES to second question provide explanation:

Was a determination made to administer a drug/alcohol test? ☐ Yes ☐ No



If yes, provide date tested and clinic name and location:

INJURY / ILLNESS INFORMATION

- ☐ No injury ☐ First aid case ☐ Lost work day case
☐ Recordable case w/out lost days ☐ Other (Specify):

Body part affected:

MOTOR VEHICLE ACCIDENT

Type of Vehicle	Seatbelt used? ☐ Yes ☐ No
☐ Pickup/Van	Type of Collision (check those that apply)
☐ Truck	☐ Side Swipe ☐ Head On ☐ Backing
☐ Automobile	☐ Broadside ☐ Rear End ☐ Rollover
☐ Other (Specify):	Other (Specify)

EQUIPMENT DAMAGE

Equipment #	Equipment Type / Brand / Model

PROPERTY / MATERIAL DAMAGED

What was damaged?	Ownership	Amount of damage

ACCIDENT DESCRIPTION

Be precise and attach additional pages if necessary:

Photos Attached? ☐ Yes ☐ No

Witness 1: _____ Witness 2: _____

Contact: _____ Contact: _____



TRAINING & QUALIFICATIONS

Was person trained to perform activity / task? ☐ Yes ☐ No

Type of training (choose one): ☐ On-the-job ☐ Classroom

Complete list of training and/or qualification records attached? ☐ Yes ☐ No

Was a policy in place that would have prevented this incident? ☐ Yes ☐ No (If yes, identify)

Was the policy followed? ☐ Yes ☐ No

Was the policy effective? ☐ Yes ☐ No

Was the policy clearly communicated to all employees involved in this incident? ☐ Yes ☐ No

If yes, how?

If yes, did a violation of safety policy contribute to this incident/injury?

If yes, what disciplinary action has been taken or is planned for violation of safety policy?

Were the acts or conditions identified in the JSA and/or Site Control Plan? ☐ Yes ☐ No (Attach JSA/SCP)

Fully explain what acts or conditions contributed to the accident:

As the supervisor, what actions have you planned or taken to prevent recurrence?

Date for actions identified above:

Beginning Date: _____ Completion Date: _____

Supervisor Completing Report:

_____	_____	_____
Name (print)	Signature	Date



SUPERVISOR LOSS INVESTIGATION REPORT

Attach pictures below.



Job Number	Location	Work Location Lead	Date	Supervisor

1. Check indicates no change in condition or issues that constitute amendments to the JSA.
2. "X" indicates that there was a change in condition that will need to be updated and noted on the associated JSA for the crew. Any deficiencies should be recorded and alerted to management accordingly.
3. This form is to be completed by the Supervisor of each crew.

Mid-Morning								
Employee	FIT for Duty	PPE Check	Equip Check	Refuel Rehydrate	Changes in Environment		Procedures Correct	Allowed Break Time
					Weather	Terrain		

Lunch								
Employee	FIT for Duty	PPE Check	Equip Check	Refuel Rehydrate	Changes in Environment		Procedures Correct	Allowed Break Time
					Weather	Terrain		



Mid Afternoon								
Employee	FIT for Duty	PPE Check	Equip Check	Refuel Rehydrate	Changes in Environment		Procedures Correct	Allowed Break Time
					Weather	Terrain		

Supervisor Notes:



1. OVERVIEW

- a. Heat is a leading cause of death among all hazardous weather conditions in the United States. Heat is a serious occupational hazard for many workers, both indoors and out. The purpose of this standard is to educate employees and provide them with the processes to reduce heat stress at work.

2. STANDARD

2.1. Written Program

- a. A Heat Illness Program should include:
 - The environmental and personal risk factors for heat illness.
 - Company procedures for complying with the requirements of this standard.
 - The importance of frequent consumption of small quantities of water, up to four (4) cups per hour, is when the work environment is hot, and employees are likely to be sweating more than usual in the performance of their duties.
 - The importance of acclimatization.
 - The different types of heat illness and the common signs and symptoms of heat illness.
 - The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms, or signs of heat illness in themselves or in co-workers.
 - Company procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
 - Company procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.
 - Company procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.

2.2. Exposure to Heat Stress

- a. Any process or job site that could raise an employee's deep core temperature to 100.4°F or more raises the risk of heat stress.



- b. Operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress in employees. Procedures must be in place to control the effects of environmental factors that can contribute to heat related illness. The most common environmental factors are air temperature, humidity, radiant heat sources, and air circulation.

2.3. Contributing Factors

- a. Occupational heat exposure is a combination of many factors. Body heat results from the equilibrium of heat gain, from internal work and outside addition, and heat loss, primarily from evaporative cooling, i.e., sweat evaporation. Contributors include:
 - Physical activity.
 - Air temperature.
 - Humidity.
 - Sunlight.
 - Heat sources (e.g., ovens or furnaces, heat-absorbing roofs, and road surfaces).
 - Air movement.
 - Clothing that hampers the body's ability to lose excess heat, such as protective gear.
 - Individual or personal risk factors, (e.g., pre-existing health conditions and lifestyle).
- b. Physical factors that contribute to heat-related illness should be taken into consideration before performing a task. The most common physical factors that can contribute to heat related illness are type of work, level of physical activity and duration, and clothing color, weight, and breathability.
- c. Supervisors must ensure personal factors that contribute to heat related illness are taken into consideration before assigning a task where there is the possibility of a heat-related illness occurring. The most common personal factors that can contribute to heat related illness are age, weight/fitness, drug/alcohol use, prior heat-related illness, etc.

2.4. Monitoring the Heat

- a. Supervisors must monitor heat-related conditions through NOAA, The Weather Channel, OSHA/NIOSH Heat app, or using a Wet Bulb Globe Temperature (WBGT).



2.5. Preventative Measures

- a. When employees are exposed to a heat index of 80° or higher for more than 15-minutes in a 60-minute period, the initial heat trigger preventative measures must be implemented to include:
 - Provide cool drinking water that is easily accessible (at least one quart per hour).
 - Allow paid rest breaks if needed.
 - Provide shaded areas or air conditioning for outdoor work.
 - Provide air conditioning or increased air movement for indoor work.
 - Provide three-way communication to regularly communicate with employees.
 - Acclimatize new and returning employees to heat exposure.
- b. At or below 80°F, the employee must have timely access to shade upon request. For temperatures at or above 80°F, one (1) or more areas with shade must be provided at all times while employees are present. Shade must accommodate the number of employees on recovery or rest periods.
- c. When employees are exposed to a heat index of 90° or higher, the high heat trigger preventative measures must be implemented to include:
 - Provide 15-minute breaks every two (2) hours.
 - Issue a “hazard alert” to notify employees of the importance of staying hydrated and taking the mandatory rest breaks (as well as additional breaks as needed) and the procedures to follow in an emergency.
 - The methods to use to monitor employees for signs and symptoms of heat illness to include:
 - A buddy system where coworkers observe each other.
 - Observation by a supervisor or heat safety coordinator.
- d. In high temperatures, the following procedures should take place:
 - Effective communication by voice or electronic means.
 - Observation of employees for alertness and signs/symptoms of heat illness.



- Designation of employees on each worksite to call for emergency medical services.
 - Reminders to drink water throughout the shift.
 - Pre-shift meetings before beginning work.
 - Reminders to employees of their right to take a cool-down rest when necessary.
- e. Engineering and administrative controls that can help prevent heat stress include, but are not limited to:
- General ventilation dilutes hot air with cooler air.
 - Air treatment/air cooling reduces temperature in air by removing heat.
 - Heat conduction blocking, such as insulation and changing surfaces, can reduce heat.
 - Acclimatize workers by exposing them to a hot environment for progressively longer periods.
 - Replace fluids by providing cool water or liquids.
 - Reduce physical demand by reducing physical exertion.
 - Provide recovery areas, such as air-conditioned enclosures and rooms with rest periods.
 - Reschedule hot jobs during the cooler part of the day.
 - Monitor workers who are at risk of heat stress.
- f. The heat index is a simple tool and guide for employers to make decisions about protecting workers in hot weather. It does not account for certain conditions that can add temperature to the heat index, such as working in direct sun or wear heavy clothing and PPE.

2.6. Structured Breaks

- a. Structured breaks set pre-established times during the shift for supervisors and crews to gather, reset, and reassess their activity. These breaks are “monitored” breaks and are not intended to replace existing rest periods, but supplement them as needed in accordance with Phillips’ Fatigue Management and FIToday Standard.
- b. Structured breaks must be documented on Phillips’ Structure Break Record form.



- c. One way to determine the adequacy of the work rest period is to monitor heart rate. At the beginning of the rest period, count the pulse for 30 seconds. If the heart rate exceeds 110 beats per minute, shorten the next work period by 1/3 and keep the rest period the same.

2.7. Signs & Symptoms

- a. All employees must be trained to recognize the signs and symptoms of heat-related illnesses. If an employee is experiencing symptoms, promptly provide first aid. Heat-related conditions can worsen quickly, therefore must be treated immediately. Supervision must be notified immediately.
- b. Heat Illnesses include:

ILLNESSES	CAUSES	SIGNS AND SYMPTOMS
Heat Stroke (most severe) Considered a medical emergency, call 911.	Heat stroke results from prolonged exposure to high temperatures, usually in combination with dehydration, which leads to the failure of the body's temperature control system resulting in a dangerously high core body temperature.	• Confusion • Slurred speech • Unconsciousness • Seizures • Heavy sweating or hot, dry skin • Very high body temperature • Rapid heart rate
Heat Exhaustion	Heat Exhaustion occurs when the body becomes dehydrated and is unable to regulate its internal body temperature. When the body is dehydrated, it lacks water and electrolytes, reducing the body's ability to sweat which is needed for cooling.	• Fatigue • Irritability • Thirst • Nausea or vomiting • Dizziness or lightheadedness • Heavy sweating • Elevated body temperature or fast heart rate
Heat Cramps	Heat Cramps are painful muscle cramps, usually in the stomach, arms, or legs that may occur during or following heavy activity. Heat cramps are an early warning sign the body is having trouble with heat.	• Muscle spasms or pain • Usually in legs, arms, or trunk



Heat Rash

Heat Rash, also known as prickly heat, develops when blocked pores, or sweat ducts, trap perspiration under the skin.

- Clusters of red bumps on skin
- Often appears on neck, upper chest, and skin folds

- c. Employees suffering from heat-related illness or believing a preventative recovery period is needed must be provided with access to an area with shade that is either open to the air or provided with ventilation or cooling. Such access to shade must be permitted at all times.

2.8. First Aid

- a. First aid for heat-related illnesses involves the following principles:
- Take the affected employee to a cooler area (e.g., shade or air conditioning).
 - Cool the employee immediately. Use active cooling techniques such as:
 - Immerse the worker in cold water or an ice bath. Create the ice bath by placing all available ice into a large container with water. This is a standard practice in sports and the best method to cool employees rapidly in an emergency.
 - Remove outer layers of clothing, especially heavy protective clothing.
 - Place ice or cold wet towels on the head, neck, trunk, armpits, and groin.
 - Use fans to circulate air around the employee.
 - Never leave an employee with a heat-related illness alone. The illness can rapidly become worse.
 - If you are in doubt, call 911!
- b. Confusion, slurred speech, or unconsciousness are signs of heat stroke. When these types of symptoms are present, call 911 immediately and cool the worker with ice or cold water until help arrives.

2.9. Hydration Target

- a. Hydrate before work to make it easier to stay hydrated.
- b. Hydrate during work, even when you do not feel thirsty. When working in the heat, drink one cup (8 ounces) of water every 15-20 minutes. This is about 32 ounces of water every hour. Do not exceed 48 ounces in an hour.



- c. Hydrate after work to help replace the fluids you lost while working. Hydration posters must be posted in restrooms, port-a-johns, job trailers, Conex boxes, and other places employees congregate.
- d. Employees must have access to fresh, pure, and suitably cool potable drinking water at no charge. Where it is not plumbed or otherwise continuously supplied, it must be provided in sufficient quantity at the beginning of the work shift but not less than one quart per hour per employee.
- e. Employees must avoid liquids containing caffeine and alcohol, which can affect their bodies' water retention, making them more vulnerable to heat illnesses.
- f. Encourage employees to eat smaller, more frequent meals that reduce the heat the body produces compared to eating large meals less frequently and choosing foods with higher water content, such as fruits, vegetables, and salads.

2.10. Acclimatization

- a. Acclimatization is the process or result of becoming accustomed to a new condition such as working in a hot environment. By gradually acclimating employees and exposing them to work in a hot environment for progressively longer periods will help them get used to these new conditions in a safe manner.
- b. Gradually acclimatize both new and returning employees to heat exposure:
 - Employees with previous experience in jobs where heat levels are high enough to produce stress may acclimatize with a regimen of 50% exposure on day one (1), 60% on day two (2), 80% on day three (3), and 100% on day four (4).
 - New employees with no previous experience in jobs where heat levels are high enough to produce stress may acclimatize with a regimen of 20% exposure on day one (1), with a 20% increase in exposure each day.
- c. Most people take approximately 5-7 days to acclimate to the heat, however many factors can impact this such as medications or medical history, which could take people up to 14 days to fully acclimate.

3. TRAINING

- a. Supervisors must receive training in the prevention of heat-related illnesses prior to supervising employees working in heat. Supervisors must be trained in the employer's heat illness procedures to prevent heat illness and procedures to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.



- b. Supervisors and employees must be trained in heat hazards. They should also learn about prevention and first aid. Topics should include:
- Types of heat-related illness, including how to recognize common signs and symptoms.
 - Importance of immediately providing first aid to affected employees.
 - Procedures for contacting emergency medical services.
 - Importance of protecting new “unacclimatized” workers to acclimatization.
 - Job-related and personal risk factors for heat-related illness.
 - Fluid replacement guidelines.
 - Appropriate work/rest cycles (i.e., mandatory rest breaks) when heat stress is high.
 - Importance of taking rest breaks in areas that are cooler than the worksite.

4. APPENDICES

- None



1. OVERVIEW

- a. The purpose of this standard is to protect employees from atmosphere contamination by establishing accepted practices for respirator use, providing guidelines for training, selecting respirators, and outlining proper storage, use, and care of respirators in accordance with OSHA 29 CFR 1910.134.

2. STANDARD

2.1. General Requirements

2.1.1. Written Respiratory Protection Program

- a. A written Respiratory Protection Program must be developed, implemented, and include the worksite-specific procedures and elements required for respirator use. A suitably trained program administrator must be designated to administer the program. The program must include:
 - Procedures for selecting respirators for use in the workplace.
 - Medical evaluations of employees required to use respirators.
 - Fit testing procedures for tight-fitting respirators.
 - Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations.
 - Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.
 - Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators.
 - Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations.
 - Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.
 - Procedures for regularly evaluating the effectiveness of the program.

2.1.2. Hazard Assessment & Respirator Selection

- a. A hazard assessment must be performed for each operation or work area where airborne contaminants may be present in routine operations or during an emergency and include:



- Review of work processes to determine where potential exposures to hazardous substances may occur. This review must be conducted by surveying the workplace and talking with employees and supervisors.
 - Identification of hazardous substances in the workplace.
 - Review of Safety Data Sheets to identify hazardous constituents
 - Exposure monitoring to quantify potential hazardous exposures.
 - A Respirator Use Record form must be completed to document hazard assessment and respirator selection.
- b. Appropriate respirators must be selected and provided based on the respiratory hazards to which workers are exposed and workplace and user factors that affect respirator performance and reliability.
- c. All respirators must be NIOSH certified and must be used in compliance with the conditions of their certification.
- d. All filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval labels.
- e. The program administrator must revise and update the hazard assessment as needed such as any time work process changes may potentially affect exposure.
- f. If an employee feels that respiratory protection is needed during an activity, the supervisor, safety manager, or the program administrator must be contacted to perform an assessment and communicate the results to all affected parties.
- g. The program administrator may arrange for third-party hazard assessments as needed.

2.1.3. Control Methods

- a. Engineering controls, such as enclosure or confinement of the operation, ventilation, or substitution of less toxic materials, must be used to minimize exposure.
- b. When effective engineering controls are not feasible or while they are being instituted, appropriate respirators must be used. A respirator must be provided for each employee when such equipment is necessary to protect the health of such an employee. A respirator must be provided to each employee when such equipment is necessary to protect the health of such an employee.



2.1.4. General Respirator Use

- a. When respirators are required, employees must use a respirators and follow the training received on each model's use. The respirator must not be used in a manner that is not certified by NIOSH or by the manufacturer.
- b. Employees who wear a tight-fitting respirator must conduct user seal checks each time they put on a respirator.
- c. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that would prevent a proper seal or interfere with valve function.
- d. Employees are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the facepiece.

2.1.5. Medical Evaluation

- a. A medical evaluation must be provided to determine the employee's ability to use a respirator before being fit tested or required to use the respirator. Phillips must identify a physician or other licensed health care professional to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.
- b. Medical evaluations must be administered confidentially, and the employee must be provided with the opportunity to discuss the assessment with the PLHCP.
- c. Follow-up medical exams must be granted to employees as required or as deemed necessary by the PLHCP.
- d. Positive Pressure Air Purifying Respirators must be provided to employees as required by medical necessity. These respirators use a blower to force ambient air through an air-purifying cartridge or filter and into the facepiece.
- e. After an employee has received clearance to wear a respirator, additional medical evaluations must be provided under the following circumstances:
 - The employee reports signs and/or symptoms related to their ability to use the respirator, including shortness of breath, dizziness, chest pains, or wheezing.
 - The evaluating physician or supervisor must inform the program administrator that the employee needs to be re-evaluated.
 - Information found during the implementation of the program, including observations made during fit testing and program evaluation, indicates a need for re-evaluation.



- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

2.1.6. Fit Testing

- a. Employees using a tight-fitting facepiece respirator must pass an appropriate qualitative or quantitative fit test. Employees using a tight-fitting facepiece respirator must be fit tested prior to initial use of the respirator, whenever a different respirator facepiece (size, style, model or make) is used, and at least annually thereafter.
- b. Tight-fitting facepieces may not be used by employees who:
 - Have facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function.
 - Any condition that interferes with the face-to-facepiece seal or valve function.

2.1.7. Cleaning

- a. Employees must be provided with respirators that are clean, sanitary and in good working order. Respirators must be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- b. Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station. Respirators issued for the exclusive use of an employee must be cleaned as often as necessary. Atmosphere-supplying and emergency use respirators are to be cleaned and disinfected after each use.
- c. The following procedure is to be used when cleaning and disinfecting reusable respirators:
 - Disassemble the respirator by removing any filters, canisters, or cartridges.
 - Wash the face piece and all associated parts (except cartridges and elastic headbands) in an approved cleaning disinfectant solution in warm water (about 120°F). Do not use organic solvents. Use a hand brush to remove dirt.
 - Rinse completely in clean, warm water. Disinfect all facial contact areas by spraying the respirator with an approved disinfectant, and air dry in a clean area prior to reassembly.
- d. An adequate supply of appropriate cleaning and disinfection materials must be provided for use.

2.1.8. Inspection & Maintenance

- a. All reusable respirators must be inspected routinely before each use and during cleaning. Respirator inspections should include a check of respirator function, tightness of connections, the condition of the various parts including, but not limited to, the



facepiece, head straps, valves, connecting tube, and cartridges, canisters, filters, and elastomeric parts.

- b. Respirators are to be adequately maintained to ensure they function correctly and protect employees. Worn or deteriorated parts must be replaced before use in accordance with the manufacturer's instructions. The manufacturer must conduct repairs to regulators or alarms of atmosphere-supplying respirators.
- c. Respirators kept for emergency use and Self-Contained Breathing Apparatus (SCBA), a respirator that provides breathing air from a source independent of the surrounding atmosphere instead of purifying the atmosphere, must be checked for proper function before and after each use and inspected at least monthly to assure they are in satisfactory working order. A record of inspection dates and findings must be documented on the Respiratory Inspection Record.
- d. If an employee experiences malfunctions of a respirator, including breakthrough, facepiece leakage, or an improper working valve, the employee must notify the supervisor and go to a designated area to perform maintenance. The supervisor must ensure the employee receives the needed parts to repair the respirator or is provided with a new respirator. Situations when this is permitted include:
 - Washing face and respirator face piece to prevent any eye or skin irritation.
 - Replacing the filter, cartridge, or canister.
 - Detection of vapor or gas breakthrough or leakage in the face piece.
 - Detection of any other damage to the respirator or its components.
- e. Respirator cartridges must be replaced as determined by the program administrator, supervisor, and per the manufacturer's instructions.
- f. Respirators that are defective or have defective parts must be taken out of service immediately. If an employee discovers a defect in a respirator during an inspection, it must be reported to supervision and one of the following actions must be taken:
 - Temporarily tag the respirator out of service until it can be repaired.
 - Make necessary repairs.
 - Dispose of the respirator due to an irreparable problem or defect.



2.1.9. Storage

- a. All respirators must be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals and must be packed or stored to prevent deformation of the facepiece and exhalation valve.
- b. Each employee must store their respirator in a plastic bag or airtight container labeled with the employee's name, and they must store their respirator in a designated area. Respirators must be packed or stored so the facepiece and exhalation valve must rest in a position that does not cause distortion.
- c. Before being issued to employees, a supply of respirators and respirator components must be stored in their original manufacturer's packaging in a designated area.

2.1.10. Procedures for IDLH or Potential IDLH Atmospheres

- a. Immediately Dangerous to Life or Health (IDLH) is defined as an atmosphere that poses an immediate hazard to life or poses immediate irreversible debilitating effects on health.
- b. For IDLH or potential IDLH atmospheres:
 - Employees must never enter a dangerous atmosphere without first obtaining the proper protective equipment and permission to enter from the program administrator or supervisor.
 - Employees must never enter a dangerous atmosphere without at least one (1) or more employees located outside the IDLH atmosphere.
 - The employees located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue
 - A company designate is notified before the employees located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue
 - The company designate provides necessary assistance appropriate to the situation.
 - Employees located outside the IDLH atmospheres are equipped with proper equipment for rescuing employees who enter these hazardous atmospheres.
 - Communications (voice, visual, or signal line) must be maintained between the employees entering a dangerous atmosphere and those located outside in the safe atmosphere.
 - Respiratory protection in emergency situations is for escape purposes only. Phillips employees are not trained as emergency responders and are not authorized to act in that capacity.

2.1.11. Breathing Air Quality

- a. When employees are required to use atmosphere-supplying respirators (supplied air or SCBA), the employer must ensure breathing air supplied in cylinders or by compressor meets all the criteria established in 1910.134(l).



2.1.12. Voluntary Use of Respirators

- a. If a respirator is not required for the job task but an employee voluntarily desires to wear an approved NIOSH dust mask (N95 series or equivalent), the employee must be issued a dust mask for their voluntary use. A dust mask is a NIOSH approved, single-use disposable respirator that may or may not have an exhalation valve.
- b. The voluntary use of dust masks does not require a medical evaluation, and the employee does not have to be clean shaven, although it is recommended.
- c. Employees who choose to wear a half-face air-purifying respirator (APR) must comply with the applicable program requirements to include medical evaluation and training. An APR is a respirator with an air-purifying filter, cartridge, or canister capable of removing specific air contaminants by passing ambient air through the air-purifying filter medium.

2.1.13. Program Evaluation

- a. The program administrator must conduct periodic evaluations of the workplace to ensure the program's provisions are being implemented. The assessments must include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring, and a review of records.
- b. Identified problems, plans to correct deficiencies, and target dates for implementation of corrective actions must be documented and addressed by the program administrator in the Respiratory Protection Program.

2.1.14. Documentation & Recordkeeping

- a. The following records must be maintained on file:
 - Fit Test Records.
 - Training.
 - Respirator Inspections.
 - Respirator Voluntary Use Declarations.
 - Air Supply Quality Documentation.
- b. Copies of the physician's written recommendation regarding each employee's ability to wear a respirator must be maintained. The completed medical questionnaires and evaluating physician's documented findings must remain confidential in the employee's medical records at the location of the evaluating physician's practice.



3. TRAINING

- a. Effective training must be provided for employees who are required to use respirators. Phillips must provide training prior to requiring the employee to use a respirator in the workplace.
- b. Retraining must be administered annually, and when the following situations occur:
 - Changes in the workplace or the type of respirator render previous training obsolete.
 - Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill.
 - Any other situation arises in which retraining appears necessary to ensure safe respirator use.

4. APPENDICES

- Respirator Inspection Record
- Respirator Use Record
- Voluntary Respirator Use Declaration



In the event of an emergency, dial 911

Project Name: _____ Project Number: _____ Date: _____

Company Supervisor: _____ Company Competent Person: _____

Prime Contractor: _____ Subcontractor / Excavation Contractor: _____

Client Representative (If Applicable): _____ Client Phone Number: _____

Description of Work and Location: _____

Associated OneCall Number: _____ OneCall Start Date: _____ OneCall End Date: _____

Note: New OneCall Requires New Permit

Locate marks identified?: Yes No Locate marks visible?: Yes No

Who from Company verified locate marks?

Name: _____ Approving Signature: _____

Utilities below were identified and marked accordingly in the work area?:

Electrical	Gas	Potable Water	Sewer	Reclaimed Water	Communication	Stormwater	None
Potholing required?: Yes No							

Note: Tolerance zone, 30". Utilities must be potholed at a minimum every 25' horizontally and a minimum 12" below the intended excavation depth or until the utility is identified.

Is LOTO required?:	Yes	No	Has LOTO been verified?:	Yes	No	Is overlock required?:	Yes	No
Excavation Depth:	Less than 4'		Equal to or greater than 4'		Greater than 20'			

Note: Phillips classifies all soil as Type C. Engineering design required at 20' or greater in depth with Phillips Safety approval.

Method of protection: Sloping 1½:1 Shoring Shielding Not Applicable

Additional Safety Considerations:

Reviewed By:

Supervisor: _____ Signature: _____ Date: _____

Competent Person: _____ Signature: _____ Date: _____

Safety Representative: _____ Signature: _____ Date: _____

Client Representative (If Required): _____ Signature: _____ Date: _____

Note: Permit shall be kept at the work location at all times with associated locate documentation attached.

SKETCH AREA

Use the sketch area to show how the high hazard mitigation methods will be implemented. Show items such as slope of excavation, underground and overhead utilities, clearance distances, work limits, etc.

OPTIONAL SKETCH UPLOAD

In lieu of drawing a sketch on page 2, a marked up drawing can be uploaded here.



Form to be completed daily, prior to any excavation or trenching work.

Project: _____

Competent Person: _____

Excavation Depth / Width: _____

Protective System: _____

Date & Time: _____

Soil Type: _____

GENERAL SITE CONDITIONS

Yes No N/A

Excavation, adjacent areas, and protective systems inspected by a designated competent person daily prior to start of work or as hazards warrant.

Competent person has the authority to remove employees from the excavation immediately and stop work. Vibrations from nearby traffic or equipment.

Tension cracks observed along top of slope.

Evidence of shrinkage cracks in trench walls.

Caving or sloughing of soil since last inspection.

Above ground hazards removed, secured, or safeguarded.

Employees protected from loose rock/soil that could pose a hazard by falling or rolling into the excavation.

Spoils, materials, and equipment set back at least 2 feet from the edge of the excavation.

Barriers provided at all remotely located excavations, wells, pits, shafts, etc.

Walkways and bridges over excavations 6 feet or more in depth are equipped with standard guardrails and toe boards.

Warning vests or other highly visible clothing provided and worn by all employees exposed to vehicular traffic.

Employees required to stand away from vehicles/equipment being loaded or unloaded.

Employees prohibited from going or working under suspended loads.



Employees prohibited from working on the faces of sloped or benched excavations above or below other employees.

Employees are prohibited from working on slopes below equipment within a 45° angle from either side of the equipment.

UTILITIES

Yes No N/A

Utility company contacted and/or utilities located. (Refer to Excavation/Penetration Permit # _____ and corresponding locate documentation)

Locations of utilities marked.

Underground installations protected, supported, or removed and visibly marked if needed when excavation is open.

Utilities potholed at minimum of every 25' horizontally and a minimum of 12" below the intended excavation depth or until the utility is identified.

HAZARDOUS ATMOSPHERES

Yes No N/A

Atmosphere within the excavation tested where there is a reasonable possibility of an oxygen deficiency, combustible atmosphere, or other harmful contaminant present posing a hazard at a depth of 4' or more.

Adequate precautions taken to protect employees from exposure to an atmosphere containing less than 19.5% or more than 23.5% oxygen and/or other hazardous atmosphere.

Ventilation provided to prevent employee exposure to an atmosphere containing flammable gas in excess of 10% of the lower explosive limit of the gas.

When controls are used to reduce atmospheric hazards, air monitoring testing must be conducted continuously to ensure that the atmosphere remains safe.

A rescue plan, including emergency equipment, such as breathing apparatus, safety harness, and lifeline and/or basket stretcher readily available where hazardous atmospheres could or do exist.

Employees trained to use personal protective and rescue equipment.

Safety harness and lifeline used and individually attended when entering bell bottom pier holes or other, similar deep and confined footing excavations.

Unobstructed lateral travel to means of egress no greater than 25 feet in excavations 4 feet or more in depth.

Ladders used in excavations secured and extended 3 feet above the edge of the excavation.



Structural ramps used by employees designed by a competent person.

Structural ramps used for equipment designed by a registered professional engineer.

Ramps constructed of materials of uniform thickness, cleated together on the bottom, and equipped with a no-slip surface.

Employees protected from cave-ins when entering or exiting excavations.

WET CONDITIONS

Yes No N/A

Precautions taken to protect employees from the accumulation of water.

Work prohibited in unprotected excavations with accumulated water.

Surface water or runoff diverted or controlled to prevent accumulation in excavations.

Inspections made after every rainstorm, freeze-thaw cycle, or other hazard increasing occurrence by a competent person.

PROTECTIVE SYSTEMS

Yes No N/A

Materials and/or equipment for support systems selected based on soil analysis, depth, width, and expected loads.

Materials and equipment used for protective systems inspected and in good condition.

Manufacturer's tabulated data available for review of protective systems.

Materials and equipment not in good condition have been tagged and removed from service.

Damaged materials and equipment used for protective systems inspected by a registered professional engineer after repairs and before being placed back into service.

Protective systems installed without exposing employees to the hazards of cave-ins, collapse, or threat of being struck by materials or equipment in excavations 5' or more in depth.

Members of support system securely fastened to prevent failure.

Support systems provided to ensure stability of adjacent structures, buildings, roadways, sidewalks, walls, etc.

Excavations below the level of the base or footing supported and approved by a registered professional engineer.

Removal of support systems progresses from the bottom and members are released slowly as to note any indication of possible failure.

Backfilling progresses with removal of the support system.

Excavate material to a level no deeper than 2' below the bottom of the support system and only if the system is designed to support the loads calculated for the full depth.

Shield system placed to prevent lateral movement.

Employees are prohibited from remaining inside the shield system during any movement of the shield.

Trench box extends 18" above the slope.

Sloping is 1.5:1 or 34° (All excavations considered Type C soil).

Registered professional engineer design for all excavations greater than 20' or those requiring design outside the OSHA design options.

Comments:

Competent Person

Name (print): _____

Signature: _____

Site Supervisor or Safety Manager

Name (print): _____

Signature: _____



1. OVERVIEW

- a. The need for employees, subcontractors, clients, or visitors to interface with heavy equipment and machinery is a daily occurrence that brings a high level of risk. Controls for working near equipment have been established to address this risk and to ensure safe interaction between personnel on the ground and equipment or machinery.

2. STANDARD

2.1. General Requirements

- a. Personnel working near equipment hazards include, but are not limited to:
 - Lack of personnel visibility by the operator because of blind spots,
 - Working within the swing radius of rotating equipment,
 - Crossing the travel path of a piece of equipment, and
 - Operations requiring personnel to be near equipment operations.
- b. Supervision must evaluate all tasks to determine the proximity to equipment required for personnel to perform their work. If possible, supervision must eliminate the hazard by carefully creating site control plans that focus on the separation of personnel from equipment.
- c. If personnel working near equipment is required, a minimum separation distance between personnel on the ground and equipment in operation must be maintained. When applicable, consideration must be given to the equipment's swing radius and the equipment's loads. Minimum clearance distances established include, but are not limited to:

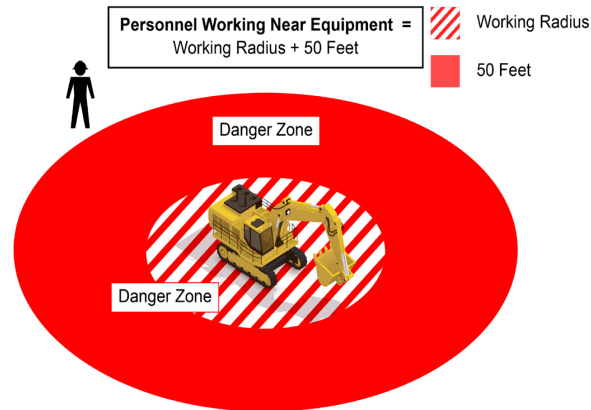
DISTANCES FOR GROUND PERSONNEL*

General Clearance	25' or as determined during JSA
Dumping Operations	2x bed length
Felling Operations	2x height of tree
Mechanical Felling	2x height of tree
Feller Buncher	300' (more in some cases)*
Grinding Operations	300'***
Rock Crushers	50'
Equipment w/Extendable Boom, Rotating Counterweight, Grapple, etc.	See Graphic A next page
Working on Slopes	See Graphic B next page

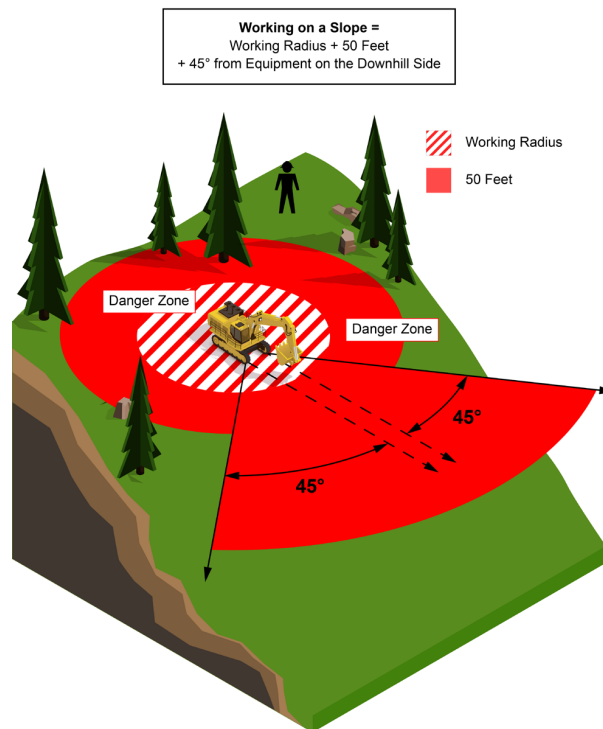
****If greater distances are mandated in accordance with the manufacturer's instructions, follow the more stringent guidelines unless a hazard assessment determines it is a greater hazard.****



- d. For any equipment with an extendable boom, rotating counterweight, grapple, etc., the full reach of the equipment and load, if applicable, must be considered when determining safe clearance.



- e. When working on slope, a safe clearance distance from equipment must equal the working radius of equipment, plus 50'. Due to the hazards of equipment sliding or rolling on slopes, employees are prohibited from working within a 45° angle from either side of the equipment on the downhill side.





- f. Many tasks require personnel to interface with equipment closely or directly, such as but not limited to loading and unloading materials, rigging, underground utility work, and drilling operations. If the nature of the task requires personnel to be within the above minimum established clearance distances, the project manager and superintendent must develop task-specific procedures to ensure the protection of employees working within the hazard zone. At a minimum, the procedure must include ensuring:
- Unnecessary personnel are prevented from entering the area.
 - Personnel on the ground do not approach any operating equipment without making eye contact with and receiving permission from the operator to approach.
 - Communication and coordination of personnel movement around equipment is established
 - Identification and communication of blind spots.
 - Use of spotters.
 - Designation of safe areas to perform tasks that separate personnel from equipment (ex. tarping loads or mechanical repairs).
 - Neutralizing controls and/or equipment shut down procedures.
 - Communication procedures to be used in these instances to include the mandatory requirement for radio usage.
 - Notification of operators regarding personnel accessing hazard areas.
 - The use of cell phones and similar electronic devices is prohibited while working on the ground near operating equipment.
 - Identification of caught in/between hazards.
 - Other factors of concern based on a risk analysis of the project activities are identified.
 - Operating personnel are advised of their presence.
 - All affected personnel are involved in the development of the plan and clearly communicate the task specific plan requirements.



- g. The established Personnel Working Near Equipment procedures must be documented in a site-specific daily JSA. All personnel, including visitors, must be briefed as part of our safety orientation process, JSA briefing, and visitor protocols.

3. TRAINING

- a. Phillips employees must be trained in Personnel Working Near Equipment initially.

4. APPENDICES

- None



THIS CHECKLIST IS TO BE UTILIZED FOR NON-PERMIT REQUIRED SPACES ONLY

Date: _____ Time: _____ Project Name and Number: _____

Type of Space (Select One): Isolated Hazard Controlled Atmosphere

Exact location of confined space (Provide structure number, building number, or exact physical location):

Description of work to be performed: _____

PRE-ENTRY CHECK:

1. Atmospheric check before isolation and ventilation:

Oxygen (O₂): _____ % Must be between 19.5% and 23% for entry without supplied air. Less than 19.5% is considered oxygen deficient. Greater than 23% is considered oxygen rich.

Flammability (Lower Explosive Limit – LEL): Hydrogen Sulfide: _____ % Carbon Monoxide: _____ ppm

2. Source of Isolation (without entry): Yes No N/A

- Pumps, lines, continuous systems blinded?
- Pumps, lines, continuous systems blocked?
- Mechanical, Electrical, Pneumatic, operating systems locked/tagged out?

3. Ventilation: Yes No N/A

- Natural ventilation only
- Mechanical ventilation
- Both natural and mechanical ventilation

4. Atmospheric check after isolation and ventilation:

Oxygen (O₂): _____ % Must be between 19.5% and 23% for entry without supplied air. Less than 19.5% is considered oxygen deficient. Greater than 23% is considered oxygen rich.

Flammability (LEL): Hydrogen Sulfide: Carbon Monoxide: _____ ppm

5. All engulfment/entrapment hazards are controlled through one of the sources identified above? Yes No N/A



CONFINED SPACE PRE-ENTRY CHECKLIST

I hereby attest that positive controls are in place for all items mentioned in Questions 2 through 5; there are no converging walls; no new hazards (welding fumes, cleaning solvents, hazardous chemicals, etc.) will be introduced into the space; and there is no reason to believe that conditions will change. Accordingly, this space may be entered without a permit. I further attest that all personnel required to enter this confined space have been trained in accordance with the requirements of 29 CFR 1926.1216(b)(2) & 1217(b).

Confined Space Competent Person: _____
Name (print)

Signature Date/Time: _____

NOTE: This checklist must be attached to the Confined Space Entry Plan and retained at the confined space until completion of work. Following completion of work, this checklist and the Confined Space Entry Plan must be retained in the project files for no less than one (1) year for audit purposes.



1. PURPOSE

- a. This procedure prevents injury from unexpected startup or release of stored energy during servicing, maintenance, or repair of mobile construction equipment. This procedure outlines the minimum requirements for controlling hazardous energy in compliance with OSHA 29 CFR 1910.147 and 1926 Subpart O.

2. SCOPE

- a. This procedure applies to all employees, mechanics, operators, and subcontractors who perform servicing, maintenance, or repairs on mobile equipment operated on project sites.

3. DEFINITIONS

- a. **Servicing:** Minor servicing activities (e.g., fueling, greasing, checking fluid levels) that do not expose workers to hazardous energy. These tasks do not require lockout but must be performed using alternative safety measures such as parking the equipment, neutralizing controls, restricting access, and using signage to prevent unexpected startup.
- b. **Maintenance/Repairs:** Tasks to include preventative maintenance, involving exposure to hazardous energy sources. These tasks require isolating energy at all energy control points using lockout devices, applying tags, and verifying that all stored energy has been safely released before work begins.
- c. **Authorized Employee:** An employee who has been trained and is authorized to lock out or tag out machines or equipment to perform servicing or maintenance. Authorized employees are the only personnel permitted to apply, remove, or transfer LOTO devices.
- d. **Affected Employee:** An employee whose job requires them to operate or use a machine or equipment that is being serviced under lockout/tagout or who works in an area where such service is performed.
- e. **Energy Source:** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy that could cause injury.
- f. **Capable of Being Locked Out:** An energy-isolating device that has a hasp or other means of affixing a lock or a built-in locking mechanism.
- g. **Not Capable of Being Locked Out:** An energy-isolating device that does not have a practical means of applying a lock. In these cases, tagout must be used with additional safety measures that provide equivalent protection.

4. MAINTENANCE AND REPAIRS (LOCKOUT/TAGOUT REQUIRED)



1.1 Preparation

1. Review the equipment manual and site-specific procedures.
2. Determine whether the equipment is capable of being locked out based on the design of the energy-isolating devices.
3. Identify all energy sources (e.g., electrical, hydraulic, pneumatic, mechanical).
4. Locate each energy-isolating device and verify how it can be secured (lockout or tagout with supplemental controls).
5. Notify all affected employees that the equipment will be shut down and serviced.

1.2 Equipment Shutdown

1. Park equipment on level ground and set the parking brake.
2. Lower all attachments to the ground.
3. Neutralize controls
4. Allow engine to idle if needed, then shut down completely.
5. Cycle hydraulic controls to relieve pressure.

1.3 Energy Isolation

1.3.1 Equipment Capable of Being Locked Out

1. Remove and retain the ignition key (must stay with the authorized employee).
2. Turn the battery disconnect switch or master power switch to the OFF position.
3. Apply a lockout device through the integrated hasp and affix a “Do Not Operate” tag.
4. Locks must be individually keyed, and the key shall remain in the sole possession of the authorized employee who applied the lock.
5. Apply a “Do Not Operate” tag on the primary control station — such as the steering wheel, joystick, or instrument panel.
6. Place “Do Not Enter Cab” sign on all access points to the cab.
7. Block raised components (such as arms and booms) using approved restraints.
8. Chock wheels as needed.



1.3.2 Equipment NOT Capable of Being Locked Out

1. Remove and retain the ignition key (must stay with the authorized employee).
2. Disconnect or isolate the energy source (e.g., remove battery cable or fuse).
3. Apply a tag directly to the isolating point as close as possible to the point of disconnection.
4. Apply a second “Do Not Operate” tag to the primary control station — such as the steering wheel, joystick, or instrument panel.
5. Place “Do Not Enter Cab” sign on all access points to the cab.
6. Use additional safety measures, such as wheel chocks, blocking hydraulic controls, or disabling the start circuit.

1.4 Verification of Zero Energy

1. Attempt to start or move equipment using standard controls.
2. Confirm there is no power or movement.
3. Return controls to neutral/off.

1.5 Transfer of Responsibility

- a. If work is transferred between mechanical service personnel, the incoming authorized employee must apply their own lock or tag before the previous one is removed.

1.6 Restoring Equipment to Service

1. Ensure the area is clear of people, tools, and parts.
2. Remove locks, and tags — only by the person who applied them.
3. Reconnect energy sources.
4. Test equipment functionality.
5. Notify affected personnel that the equipment is operational.



5. MINOR SERVICING (ALTERNATIVE SAFETY CONTROLS)

5.1. Initial Setup

1. Park equipment, set parking brake, and lower attachments.
2. Controls must be neutralized.
3. Operator exits cab.
4. Chock wheels if needed.

5.2. Access Control

1. Service person places “Do Not Enter Cab” sign on all access points to the cab.
2. Use 3-way communication to confirm that equipment is out of service and access is restricted.

5.3. Completion Protocol

1. The designated service person must ensure that all service personnel are accounted for and have moved to a safe, visible location, well outside the equipment’s travel path or swing radius.
2. The service person and the operator must conduct a joint 360° walkaround, checking for personnel, tools, or obstructions.
3. After confirming the area is clear, the service person will remove the “Do Not Enter Cab” sign(s) while the operator is present.
4. The operator shall not start or move the equipment until:
 - The walkaround is complete
 - The sign has been removed
 - The service person gives clear verbal confirmation (e.g., “All clear — safe to start”)

6. REMOVAL OF LOCKOUT/TAGOUT DEVICES WHEN INSTALLING EMPLOYEE IS UNAVAILABLE

- a. Removal of a lockout/tagout device by anyone other than the installer is a rare exception, permitted only when necessary and never for convenience.



- b. Whenever feasible, every effort shall be made to have the installing employee return and remove their own device.
- c. If the authorized employee who installed the lockout/tagout device is not present and cannot return to the site within a reasonable time, their lockout/tagout device may only be removed under the following conditions — and only with prior approval from the VP of Operations (currently Pat Williams, Eric Hedrick, and Bob Ertle):
 - A designated P&J competent person, approved by the VP of Operations, shall make all reasonable efforts to contact the installing authorized employee to inform them their device may need to be removed.
 - The VP-designated competent person shall notify the employee's immediate supervisor of the situation and intent to proceed.
 - The competent person designated by the VP of Operations must be present for the removal of the device.
 - Before the employee returns to work, they must be informed that their device was removed and provided a full explanation of the reason and method.
- d. For mechanical service operations that take place in the shops, prior approval must be obtained by Jerry Hill, John Morgan, or Lowell Matheson.

7. DIAGNOSTICS, TESTING, & ADJUSTMENTS

1.7 When equipment must remain running for diagnostics or adjustments

- a. "Do Not Operate" tag shall be placed on the primary control station (e.g., steering wheel, control panel, or joystick) to alert others that equipment is under technician control and must not be operated.
- b. This tag is used solely as a temporary hazard warning and does not serve as energy isolation.
- c. A qualified technician shall be placed in charge of the task and determine whether additional personnel are required based on the nature of the work.
- d. If multiple individuals are involved, the technician shall assign clear roles and ensure all names and responsibilities are documented in the Job Safety Analysis (JSA).
- e. All personnel involved must maintain continuous communication and remain in visible and safe positions throughout the task.
- f. No one shall enter pinch points, swing radius, or the travel path of the equipment while it is energized or in motion.



- g. No adjustments shall be made to moving parts (e.g., belts, fans, hydraulics) unless hazardous energy has been fully isolated or effectively guarded.

8. ADDITIONAL SAFETY PRECAUTIONS

- a. Only start the engine from the operator's seat using the proper key or switch.
- b. Never start equipment by bypassing controls (e.g., jumping starter terminals).
- c. Never work under raised components unless properly supported by an approved device. Never use concrete blocks for support.
- d. Open filler and radiator caps slowly.
- e. Never strike or tamper with pressurized components (e.g., track-tension springs).
- f. Block wheels before lifting equipment.

9. ENFORCEMENT

- a. Failure to follow this procedure may result in disciplinary action, up to and including termination, in accordance with company policy.

10. REGULATORY FOOTNOTE

- a. Fueling and greasing activities are classified as minor servicing tasks under OSHA 1910.147(a)(2)(ii)(B).
- b. Full lockout/tagout procedures are not required during these tasks unless as long as alternative protective measures — such as parking the equipment, neutralizing controls, using signage, and restricting access — are strictly followed. These controls are designed to ensure equivalent safety and prevent unexpected energization or startup.



Job Number: _____

Work to be performed by (Name / Company): _____

Type Hot Work: Grinding Torch Cutting Welding Other: _____

Equipment / Area work is being performed on: _____

Permit Requested by: _____ Date: _____ Time: _____

REQUIRED PRECAUTIONS CHECKLIST

Yes	No	(Check Yes for N/A Items)	Yes	No	(Check Yes for N/A Items)
		Available sprinklers are in service / operable.			Enclosed equipment cleaned of all combustibles.
		Hot work equipment in safe operating condition.			Containers, vessels, and work space purged of flammable liquids, gasses, and vapors.
		Required Within 35 Feet of Work Area			Fire Watch / Hot Work Area Monitoring
		Flammable liquids, dust, and oil deposits removed.			Fire watch will be provided continuously during work.
		Explosive atmosphere in area has been eliminated.			Fire watcher is supplied with and trained in the use of a fire extinguisher.
		Floors swept clean of combustibles.			Fire watcher is aware of their responsibilities and verifies procedures to contact emergency assistance.
		Combustibles floors wet down, covered with damp sand, or fire resistant sheets.			Has area above and below work area been evaluated for the need of additional fire watchers?
		Remove other combustibles where possible.			
		Otherwise protect with fire resistant sheets.			
		Remove other combustibles where possible.			
		Otherwise protect with fire resistant coverings / shields.			
		All wall and floor openings are covered.			
		Fire protective shielding suspended beneath elevated hot work.			
		Work on Walls / Ceilings / Enclosed Equipment			Other Precautions (check yes only if applicable)
		Construction is noncombustible and without combustible covering or insulation.			Confined space entry procedures in place.
		Combustibles on other side of walls moved away.			Ample ventilation in place to remove smoke/vapor.
		No danger exists by conduction of heat into another room or area.			Lockout Tagout procedures implemented.
					Protective screens in place to protect areas outside work area from arc flash.

All items must be verified and checked "YES" prior to any Hot Work being conducted.

Authorizing Supervisor/SSHO: _____ Date: _____ Time: _____

Work Completed By: _____

Fire Watcher(s): _____

Time Work Started: _____ Completed: _____

30 Minute Inspection completed By: _____ Time: _____



PHILLIPS

DAILY EQUIPMENT REPORT (REPORTE DIARIO EL EQUIPO)

Date (Fecha)

Day of Week (Días de la semana)

Time (Tiempo)

S M T W Th F Sa

Project Name or # (Proyecto de Nombre/Numero)		Location (Ubicacion)	Superintendent (Superintendente)
Equipment Type (El tipo de equipo)	Equipment # (Numero de equipo)	Inspected by (Inspeccionadas por) (Printed Name): (Firma sus Nombre)	
Equipment Hours: Beginning (Horario del equipo: Comienzo)		Equipment Hours: Ending (Horas del equipo: Fin)	

Equipment deemed "Not Acceptable" in a shaded box shall not be operated until supervisor is notified and determines what action shall be taken. If during operation you notice an issue, whether safety related or could result in equipment damage, stop and inform your supervisor immediately. (Equipo considerado "No Acceptable" en una caja sombreada no debe ser operado hasta que el supervisor sea notificado y determine qué acción se tomará. Si durante la operación nota un problema, Ya sea relacionado con la seguridad o podría resultar en daños al equipo, pare e informe inmediatamente a su supervisor.)

Equipment (Equipo)	Acceptable (Aceptable)	Not Acceptable (No Aceptable)	NA	Comments / Actions Taken (Comentarios / Las Acciones Tomadas)
Working Brakes (Foot/Hand) (Frenos de Trabajo)				
Seats (Air Ride or Non Air Ride) (Asientos: Air Ride o no Air Ride)				
Horn / Air Horn / Backup Alarm (Cuerno / Bocina de Aire / Claxo) (Circle Applicable)				
Steering (Gobierno / Manejar)				
Seat Belts (Cinturon de Seguridad)				
Access Ladder / Steps / Hand Holds (Escalera de Acceso / Pasos / Retenes de mano) (Circle Applicable)				
Fire Extinguisher (Extintor de Incendios)				
Mirror: Missing / Broken (Espejos: Ausente / Roto)				
Instruments / Warning Lights (Instrumentos)				
Windshield Wipers / Windshield Glass (Parabrisas / Ventana de Vidrio) (Circle Applicable)				
Hydraulic Lines/Air Hoses (Damaged/Leaking) (Lineas hidráulicas/Mangueras de aire: Dañadas/fugas)				
Oil Level (Engine/Hydraulic/Trans.) (El Nivel de Aceite: Motor / Hidráulico / Transmisión) (Circle Applicable)				
Fluids (Power Steering/Brake/Coolant) (Nivel de Aceite: Dirección asistida/Freno/Refrigerante)				
Rollover Protection Equipment (Equipo de Protección contra Volcaduras)				
Mfg. Operation Manual (Fabricantes de Operacion Manual)				
Tires / Tracks (Neumaticos / Pistas / Llantas)				
Operating Controls (Control de Funcionamiento)				
Lights (Head / Turn Signal / Brake) (Luces: Faro principal/Señal de giro/Freno) (Circle Applicable)				
Bed / Cargo Area / Tailgate Assembly (Cama de Zona Decarga/Conjunto del portón) (Circle Applicable)				
Tarps / Covers (Lonas / Cubiertas)				
Exhaust System (Sistema de Escape)				
Hitches/Safety Cable/Coupling Devices (Enganches / Cable de Seguridad / Dispositivos de Acoplamiento) (Circle Applicable)				
Cleanliness (Limpieza)				
Attachments (Forks/Bucket/Hammer/Sweeper/Winch/Etc.) (Archivos adjuntos: Tenedores/Cangilón/Martillo/Barrendero/Cabrestante/Etc)				
Other Equipment Issues (Problemas con otros equipos)				

Superintendent Review _____ Date _____ Mechanic Action Required Yes No

Mechanic Signature (if required) _____ Date Repairs Completed _____



1. OVERVIEW

- a. Common Phillips activities involving excavation include pipe installation, right-of-way construction, installation of stormwater controls, drilling shafts for foundations, and site clearing. Excavation and associated work can pose many hazards including cave-ins, utility strikes, struck by hazards, falls, and hazardous atmospheres. The purpose of this Standard is to ensure measures are in place to protect employees working in and around excavation activities in accordance with OSHA 29 CFR 1926 Subpart P.

2. STANDARD

2.1. Definitions

- a. **Benching System:** A method of protecting employees from cave-ins by excavating the sides of an excavation to form one (1) or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.
- b. **Excavation:** Any man-made cut, cavity, hole, trench, or depression made in the earth's surface by removing soil.
- c. **Potholing:** A method used to excavate small test holes from the surface to a buried utility line to expose its location.
- d. **Shield System:** A structure able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses.
- e. **Sloping System:** A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in factors such as the soil type, environmental conditions of exposure, and application of surcharge loads.
- f. **Shoring System:** A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in factors such as soil type, environmental conditions of exposure, and application of surcharge loads.
- g. **Surface Encumbrances:** Anything that is located on the ground in the area of the excavation that may get in the way or create a hazard for those working in the excavation or trench.
- h. **Trench:** A narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15'.



- i. **Utility Potholing:** Also known as daylighting, this is an excavation process that involves making a series of small test holes in order to accurately locate underground lines.

2.2. General Requirements

- a. An excavation competent person must be on site at all times during excavation activities.
- b. Excavation and trenching activities where personnel may work near equipment must follow Phillips' Personnel Working Near Equipment Standard.
- c. Personnel performing rigging operations must be trained and follow Phillips' Rigging and Signal Person Standard.

2.2.1. Surface Encumbrance

- a. All surface encumbrances, such as trees, telephone poles, and sidewalks that create a hazard to employees must be removed or supported to safeguard employees.

2.2.2. Access & Egress

- a. A stairway, ladder, ramp, or other safe means of egress must be located in trench excavations that are 4' or more in depth so as to require no more than 25' of lateral travel for employees.

2.2.3. Exposure to Falling Loads

- a. Employees are prohibited from standing underneath loads handled by lifting or digging equipment.
- b. Employees are required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials.
- c. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped to provide adequate protection for the operator during loading and unloading operations.

2.2.4. Warning System for Mobile Equipment

- a. When mobile equipment is operated adjacent to an excavation, or when mobile equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge, a warning system must be utilized which must include barricades, hand, or mechanical signals, or stop logs.

2.2.5. Water Accumulation

- a. Employees are not permitted to work on excavations where 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. The precautions necessary to protect employees adequately vary with each situation but



could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

- b. If water is controlled or prevented from accumulating by the use of water removal equipment, a competent person must monitor the water removal equipment and operations to ensure proper operation.
- c. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means must be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.
- d. Excavations subject to runoff from heavy rains require an inspection by a competent person.

2.3. Public Utilities

- a. The public utility companies are responsible for maintaining their underground facilities. Part of that responsibility includes registering the utilities with 811 and locating in the public right-of-way, and easement to include private property.

2.3.1. Utility Locates

- a. The estimated location of utilities, such as sewer, telephone, fiber, gas, electric, and water lines, must be identified before opening an excavation and digging.
- b. The competent person must complete a thorough review of the drawings and assessment of the area to be disturbed first to ensure there are no indications of utilities by looking for structures such as electrical boxes, concrete structures, overhead lines, irrigation or water valve boxes, gas mains, etc.

2.3.2. 811 – One-Call Center

- a. 811 is the national call-before-you-dig phone number before opening an excavation and digging. The competent person must call 811 or submit a ticket online on the state 811 center's website to request that the approximate location of buried utilities be marked with paint or flags so that you do not unintentionally dig into an underground utility line.
- b. The 811 centers must send the information to the affected utility operators. If the utility operator is private and not registered with 811, the competent person must contact that utility operator directly.
- c. The locate request must be made in accordance with each state's requirements to include making contact within the established timelines, advising of the proposed work, and asking to establish the location of

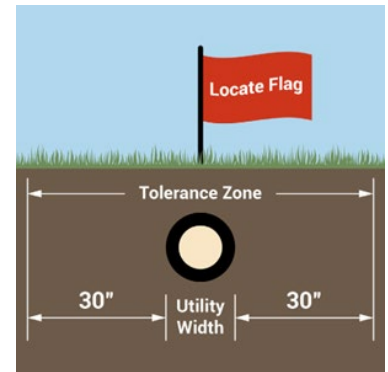
UTILITY COLOR CODES

WHITE	Proposed Excavation
PINK	Temporary Survey Markings
RED	Electric
YELLOW	Gas, Oil, & Steam
ORANGE	Communications
BLUE	Potable Water
PURPLE	Reclaimed Water
GREEN	Sewer & Storm Drains



utility underground installs prior to actual excavation. Each state has their own unique processes and laws for digging.

- d. Prior to the locate being performed by the utility operator, the competent person must ensure the boundaries of the proposed excavation are pre-marked with white paint or other white marks to define the limits of the excavation area for the locator.
- e. Wait to open the excavation or dig until all affected utility operators have confirmed, approved, and responded to the request and locate accurately. The marks (paint or flags) provided by the utility operators are the guide for the duration of the excavation project. The location must be marked in accordance with the American Public Works Association (APWA) Color Codes.
- f. If the utility operator has not responded within the established state's timeline or cannot establish the exact location of the installations, excavation may proceed provided caution is used and detection equipment or other acceptable means is used to locate the utility installations.
- g. The locate must identify the approximate horizontal location of the utility installations. Each utility marking that was installed by the locator has a tolerance zone. The tolerance zone is a 30" space on each side of a marked utility. No mechanical excavation is allowed within the tolerance zone until utilities are precisely located. If you dig and hit and damage a utility line within the tolerance zone, Phillips will be responsible for paying for the damage.
- h. The locate does not mark or identify the depths of where utility lines are located, therefore potholing must be performed to expose and identify the location and depth of the utility lines.
- i. The integrity of the marks must be maintained by adding additional delineators, paint, flags, or similar of the corresponding color until ground disturbance is completed.
- j. As-builts must be marked with utility locations for later reference. Before excavating, the existence of any lines previously marked must be verified. The full width and length of the excavation must be marked. If these marks are disturbed and no longer visible, a new locate must be requested.
- k. One-Call request record must be maintained.



2.3.3. Opening an Excavation & Digging Operations

- a. Before performing any excavating or potholing, including any type of soil disturbance even grass removal or demolition, the competent person must complete an



Excavation/Penetration Permit and discuss it with all parties involved, including subcontractors.

- b. Completed permits must be retained on the project. When a new One-Call ticket is made, a new permit must be completed.

2.3.4. Potholing

- a. Potholing is a method used to excavate small test holes from the surface to a buried utility line to expose its location and depth. Techniques range from hand digging to using vacuum excavation tools.
- b. Potholing is required within the tolerance zone to at least 12” below the intended excavation depth or until the utility is located, unless the State’s One-Call requirements are more stringent.
- c. Utilities must also be potholed at a minimum of every 25’ horizontally. Potholing throughout the horizontal length of the utility is important to ensure the depth and direction, as that can change unexpectedly. Some circumstances could require potholing to be performed more frequently.
- d. Until the utility location has been positively identified, potholing by non-invasive means must begin at the outside edge of the tolerance zone and work toward the expected utility to find and expose it or determine it is not present in the excavation area.
- e. Non-invasive methods include hand digging or vacuum excavation. Vacuum excavation is the preferred method and uses a vacuum excavator or truck to shoot pressurized water or air. The locator digs small test holes until they find the utility line in question. Other tools include air spades and non-conductive shovels with round, blunted tips,
- f. When performing potholing using a vacuum truck, follow Phillips’ Specialized Equipment Standard.
- g. Once the utility line has been positively located through potholing and the depth identified, mechanical means, such as excavators equipped with a mole board, paddle teeth or similar flat edge, can be safely used to remove the remaining dirt and open up the excavation.
- h. When using mechanical means, a spotter must be designated to ensure that equipment and implements do not impact the utility line in accordance with Phillips’ Spotter Guideline.
- i. Once utilities are identified, they can be further protected by additional controls such as additional soil cover, utilization of mats, or other to protect and warn of their location or to bridge over known utilities at heavy equipment crossings. While the excavation is



open, underground installations must be protected, supported, or removed as necessary to safeguard employees.

2.4. Private Utilities

- a. A private utility is owned and maintained by the property owner. Private utilities are not registered with 811. It is the excavator's or property owners' responsibility to have these utilities located at their own expense.
- b. The project superintendent must establish a plan to locate and mark private underground utilities using alternate means to ensure work does not impact such utilities. Alternative means may include, but are not limited to:
 - Plans and specifications from the design engineer.
 - Knowledge of client/project engineer personnel with familiarity of the site.
 - Potholing with hand tools or vacuum trucks with trained and qualified operators.
 - Use of third-party contractors that perform locate services.
 - Use of ground penetrating radar (GPR).
 - Use of specialized locate equipment.

2.5. Rock & Soil Classifications

- a. Soil classifications must be determined by testing and protective systems designed according to soil classifications.
- b. Sloping Requirement by soil or rock type:

TYPE	MAXIMUM ALLOWABLE SLOPE (EXCAVATIONS LESS THAN 20')
Stable Rock	Vertical (90°)
Type A	$\frac{3}{4}$ to 1 (53°)
Type B	1 to 1 (45°)
Type C	1 ½ to 1 (34°)

- c. Phillips classifies all soil (other than Stable Rock) as a Type C soil, requiring a minimum slope of 1 ½ :1 or 34° for excavations less than 20'.



- d. Adequate protection must be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Protections must consist of:
 - Keeping spoil, equipment, and materials at a minimum of 2' from the edge of excavations.
 - Scaling to remove loose material.
 - Installing protective barricades, or other means that provide equivalent protection, at intervals on the face to stop and contain falling and rolling material.
- e. Heavy equipment or excess soil may require additional measures to ensure the soil's ability to resist forces imposed, such as an engineered crane pad.

2.6. Protective Systems

- a. Protective systems are used to protect employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
- b. Each employee in an excavation must be protected from cave-ins by an adequate protective system EXCEPT when:
 - Excavations are made entirely in stable rock.
 - Excavations are less than 4' in depth and examination of the ground by a competent person provides no indication of a potential cave-in.
- c. Protective systems, to include sloping, for excavations over 20' in depth must be designed by a Registered Professional Engineer (RPE). RPE must also design protective systems, including sloping systems, for excavations less than 20' that, due to site conditions, cannot meet OSHA protective system requirements.

2.6.1. Sloping System

- a. Sloping is a method used to protect employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation to prevent cave-ins.
- b. Excavations 4' or more in depth must be sloped to 1½:1, or a shoring system must be provided.



2.6.2. Shoring System

- a. Shoring is a structure, such as a metal hydraulic, mechanical, or timber shoring system, that supports the sides of an excavation and which is designed to prevent cave-ins.

2.6.3. Benching System

- a. Benching is a method used to protect employees from cave-ins by excavating the sides of an excavation to form one (1) or a series of horizontal levels or steps.
- b. Phillips prohibits the benching system method from being used within excavation and trenching activities.

2.6.4. Shield Systems

- a. Shield systems, usually referred to as “trench boxes” or “trench shields,” are structures that are able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses.
- b. Trench boxes must be installed in a way to restrict lateral or other hazardous movement. The space between the excavation face and the trench box should be backfilled to ensure it is as small as possible.
- c. The maximum distance between the bottom of the trench box and the bottom of the trench must be no more than 2’.
- d. A trench box can be used in combination with other protective systems, such as sloping. In this case, the trench box must extend 18” above the surrounding area when there is sloping toward the excavation.
- e. Trench boxes must not be exposed to loads that exceed what the system is designed to withstand.
- f. Employees must be protected from the hazard of cave-ins when entering or exiting the area protected by shields.
- g. When a trench box or shield is used as the protective system, the tabulated datasheet must be readily available, and the protective system must be used following the manufacturer’s requirements.
- h. Employees are prohibited from remaining in the trench box during installation, removal, or relocation.



2.7. Vehicular Traffic & Road Crossings

- a. Employees exposed to public vehicular traffic must be provided with, and must wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.
- b. When temporary covers are used to allow vehicular or pedestrian traffic, they must be:
 - Of sufficient size and strength to support the loads imposed as must the ground supporting them.
 - Secured to prevent shifting or movement.
 - Designed and installed according to the manufacturer's recommendations.
 - Inspected daily and maintained to prevent hazards.
- c. Working near traffic and established roadway work zones must be performed in accordance with Phillips' Roadway Work Zone Standard and applicable MUTCD requirements.

2.8. Stability of Adjacent Structures

- a. Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning must be provided to ensure the stability of such structures for the protection of employees.
- b. Excavation below the level of the base or footing of any foundation or retaining wall that could be expected to pose a hazard to employees is not permitted except under the following conditions:
 - A support system, such as underpinning, is provided to ensure employees' safety and the stability of the structure.
 - The excavation is in stable rock.
 - A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation to be unaffected by the excavation work.
 - A registered professional engineer has approved the determination that excavation work must not pose a hazard to employees.



- c. Sidewalks, pavements, and secondary structures must not be undermined unless a support system or another protection method is provided to protect employees from the possible collapse of such structures.

2.9. Hazardous Atmospheres

- a. Where oxygen deficiency (atmospheres containing less than 19.5% of oxygen) or a hazardous atmosphere exists or could be expected to exist, the atmospheres in the excavation must be tested by the trained competent person before employees enter excavations greater than 4' in depth.
- b. Before an employee enters the excavation, the internal atmosphere must be tested with a calibrated direct-reading instrument for oxygen content, flammable gases and vapors, and for potential toxic air contaminants, in that order. Air monitoring equipment must be bump tested prior to use and calibrated in accordance with manufacturer's instructions.
- c. Adequate precautions must be taken to prevent employee exposure to atmospheres containing less than 19.5% oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation.
- d. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing must be conducted as often as necessary to ensure that the atmosphere remains safe.
- e. Emergency rescue equipment, such as a breathing apparatus, a safety harness and line, or a basket stretcher, must be readily available where hazardous atmospheric conditions exist or may be expected to develop during work in an excavation.
- f. Entry into confined spaces during excavation activities must be performed in accordance with Phillips' Confined Space Entry Standard.
- g. Fuel-powered equipment must not be used in an excavation unless ventilation is provided, and entry into the excavation is treated as a confined space entry. Equipment must be positioned above the excavation in a manner that ensures exhaust is not permitted to accumulate during the excavation.

2.10. Fall Protection

- a. When working at heights of 6' or more, all employees must be trained and wear appropriate fall protection in accordance with Phillips' Fall Protection Standard. For excavation and trenching activities:
 - Walkways must be provided when employees or equipment are required to cross over excavations.



- Guardrails must be provided where walkways are 6' or more above a lower level.
 - Employees must wear fall protection when walking to the edge of a shoring system 6' or more in depth.
 - Employees must remain at a safe distance from the edge of an excavation to ensure soil does not slough off, creating a fall hazard.
 - Adequate barrier physical protection must be provided at all remotely located excavations.
- b. During drilling operations, at the end of the shift, caissons, drilled shafts, wells, pits, etc. must be barricaded by complete guardrail systems or protected with covers.
- c. During drilling operations, shafts must be protected utilizing casing that is 42" +/- 3" in height or a combination of a guardrail system and danger tape and/or a personal fall arrest system and anchorage point.
- d. If possible, excavations must be backfilled as soon as work is complete or at the end of shift, particularly those excavations in a hazardous location, such as a residential area or road crossings. If it is not feasible to backfill, excavations must be barricaded with caution tape or orange fencing or other forms of protection that address the hazards.

2.11. Inspections

- a. A competent person must perform inspections of excavations, adjacent areas, and protective systems for evidence of a situation that could result in cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. Inspections must be documented on Phillips' Excavation & Trenching Checklist and inspections must be performed at the following intervals:
- Daily, before start of work, and employee entry.
 - As needed throughout the shift, such as when trenching activities progress.
 - After a rain event.
 - After any other hazard increasing occurrence.
- b. Where the competent person finds evidence of a hazardous condition, exposed employees must be removed from the hazardous area until the necessary precautions have been taken.



3. TRAINING

- a. Employees performing excavation activities must complete Excavation Awareness Training initially, and every three (3) years thereafter.
- b. Excavation Competent Person Training must be completed by supervision in charge of the excavation operation initially, and every two (2) years thereafter.

4. APPENDICES

- Excavation and Trenching Checklist
- Excavation and Penetration Permit



1. OVERVIEW

- a. Phillips takes a proactive stance to hazard recognition through proper planning, knowledge of the task at hand, identifying and controlling all hazards that exist, training and qualifying employees, and utilizing industry best practices.
- b. The company recognizes that hazard recognition is the crucial component in protecting people, property, environment, and reputation against hazardous situations encountered during each phase of a project. All physical and health hazards that employees may be exposed to in all work processes must be identified, evaluated, eliminated, or controlled.

2. PROCEDURE

2.1. Risk Assessment

- a. The process of identification, evaluation, elimination, and control of hazards and risks involve the following:
 - Identifying hazards such as unsafe conditions, behaviors, procedures, or processes.
 - Evaluating the risk presented by hazards.
 - Controlling the risk through elimination of eliminating unsafe conditions and behaviors, by making procedural or process changes while applying the hierarchy of controls.
 - Monitoring controls to make sure they are working.

2.2. Hierarchy of Controls

- a. Every existing, suspected, or potential hazard must be addressed to identify the proper control method. The hierarchy of controls should be used to mitigate hazards. When a hazard is identified, first attempt to eliminate the hazard. If elimination is not practicable, use engineering controls. If engineering controls are not practicable, implement administrative controls. If the hazard cannot be adequately controlled using engineering and/or administrative controls, employees must use PPE. A combination of engineering controls, administrative controls, and PPE is usually best.
- b. Select controls that are the most effect and permanent according to a hierarchy below:
 - Elimination – is the preferred method of controlling hazards. Elimination controls physically remove the hazard, so it does not continue to pose a risk.
 - Substitution – is a hazard control strategy in which a material or process is replaced with another that is less hazardous. It is commonly applied when evaluating and selecting chemicals.



- Engineering Controls – are methods built into the design of a piece of equipment or a process to minimize or eliminate the hazard. Engineering controls include guarding tools and equipment, barricades, enclosed cabs for noise and dust reduction as well as many others.
- Administrative Controls – many times, engineering out the problem is not feasible. If the problem cannot be eliminated, then administrative controls must be considered. Administrative controls involve work limitations, employee rotation, restrictions on who can do the work, and similar.
- PPE – OSHA considers the use of PPE as the last line of defense for hazard control. If engineering and/or administrative controls are not effective in reducing or eliminating the hazard, then PPE is used as the last resort, or sometimes as a supplement to engineering and administrative controls.

2.3. Hazard Recognition, Evaluation & Control Techniques

- a. There are a variety of techniques to assist supervision and employees in the process of risk assessment through hazard recognition, evaluation, and control to include, but not limited to, Job Safety Analyses, Site Control Plans, pre-job hazard assessments, jobsite inspections, audits, observations, and applying the “Take 2” Rule.

2.4. Job Safety Analysis (JSA)

- a. The objective of the Job Safety Analysis (JSA) is to enhance employee safety by performing these three critical steps:
 1. Carefully analyzing each step of a job.
 2. Identifying existing or potential physical and health hazards.
 3. Determining the safest way to perform the job to reduce or eliminate hazards to acceptable levels.
- b. A JSA must be developed daily for all routine and non-routine tasks and documented on Phillips’ JSA Form. Risk assessments should be performed before work begins to formally identify and assess hazards.
- c. The JSA must be updated or new JSAs completed if tasks or conditions change throughout the day such as changes to processes, equipment, or location requiring a re-evaluation of the hazards. This process classifies tasks according to their level of risk.
- d. Developing the JSA requires the following:



- An understanding of the job and the means and methods required to accomplish the tasks.
 - Reviewing safety procedures for the work to be performed.
 - Visually checking the work areas on a daily basis.
 - Planning the step-by-step tasks to evaluate all the potential hazards that can be encountered or created.
 - Anticipating unsafe conditions and behaviors and identifying controls.
- e. Each employee must be instructed in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.
- f. All personnel, including subcontractors, must be actively involved in the hazard identification process. Identified hazards and risks must be reviewed with all affected employees. Upon completion of the JSA, the following procedures should be followed:
- Discuss the JSA with the employee performing the job.
 - Ensure the employee understands the scope of the work to be performed.
 - Review the job steps, procedures, potential hazards, and recommended steps for safe accomplishment of the task to be performed.
 - Provide proper PPE to the employee.
- g. Provide or ensure proper training and qualifications of employees before beginning work. Only qualified employees with training and experience can operate equipment and machinery in accordance with Phillips' Operator Qualification Standard.
- h. If an employee arrives to work late and misses the JSA process, the Supervisor must send the employee home, unless it can be determined that it would be safe to reintegrate the employee into the operations. The determination to reintegrate the employee must include a consideration of why the employee was late as well as a FIToday evaluation. If determined an employee will remain at work, the following is required:
- A safe time to integrate the employee into the crew must be established, such as a break or lunch.
 - The entire crew must stop working and repeat the JSA process with the late employee to ensure everyone is clear on their assignments and that hazards have been clearly communicated to everyone on the crew.



- i. A formal system for classifying and ranking hazards according to risk must be established. Risk may be determined by analyzing the probability of the hazard causing harm, the frequency the hazard is encountered, and the potential consequences of impact with the hazard. A risk matrix should be developed to assist employees with risk assessment.

2.5. Site Control Plans (SCPs)

- a. A Site Control Plan (SCP) is a planning tool used to coordinate and manage all the various aspects of the work to be performed on the project and to plan for safe interactions of people, equipment, materials, and the environment.
- b. The SCP can be created using one of two primary types of visual aids used to communicate the elements of the site control plan to employees:
 - An SCP Form may be used, which includes drawing a layout of the project to help identify elements of the plan and provide a visual aid when explaining it to employees. This option is typically used for linear projects or projects with a limited footprint or time.
 - A laminated copy of satellite images of the project may be used for longer-term projects. These laminated images can be easily edited with erasable markers as the project changes.
- c. SCPs will incorporate elements such as the following:
 - Project traffic routes
 - Haul routes
 - Parking areas
 - Designated employee walkways
 - Overhead/underground utilities
 - Fuel storage
 - Port-o-johns/ticket booths, etc.
 - Designated maintenance areas
 - Laydown yards



- Unloading areas
- Wetlands
- Congested work areas
- Equipment movement
- Third-party site access
- Multiple contractor interactions

2.6. Jobsite & Workplace Inspections & Observations

- a. Safety inspections that incorporate both positive and negative physical and employee behavioral observations are among the most effective means of identifying hazardous conditions in the workplace and allowing for correction of hazardous conditions or behaviors before an incident occurs.
- b. Frequent and regular inspections of job sites, materials, and equipment to be made by competent person.
- c. Formal inspections are documented by standardized means and include descriptions of hazards and unsafe behaviors identified, abatement recommendations, and recommendations for safety process improvements.
- d. Results of inspections and their associated observations will be communicated to management and supervision for follow up.
- e. Inspection data will be analyzed and trended to identify leading indicators used to direct programmatic improvements.
- f. Elements of both Human Performance Improvement and Behavior-Based Safety are integrated into our overall hazard recognition processes to include workplace inspections and observations.

2.7. Audits

- a. Ongoing Corporate Safety & Risk audits are performed to ensure compliance with EH&S programs.
- b. These audits are reviewed with executive and division leadership and programmatic improvements are identified and completed.



2.8. “Take 2” Rule

- a. The “Take 2” Rule is a tool used by everyone on the job.
- b. Upon arriving at the work location, every employee must take two (2) minutes to look around to see if there are any additional hazards that were not identified during preparation of the JSA and determine a safe path forward. If still undecided, they must stop and contact their Supervisor for additional guidance.
- c. The “Take 2” Rule is also used any time an employee is uncertain what they are about to do is safe for employees or the environment.

3. TRAINING

- a. All Phillips employees must be trained in the hazard identification and risk assessment process and must complete training in Hazard Recognition, Evaluation, and Control initially.

4. APPENDICES

- Job Safety Analysis (JSA)
- Site Control Plan (SCP)



1. OVERVIEW

- a. All road users, including pedestrians, motorists, and bicyclists, are considered an essential part of high construction, utility work, maintenance operations and traffic accident management. The purpose of this standard is to provide measures to be used for facilitating road users through work zones or incident areas and use flaggers to provide temporary traffic control in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) Part 6E.

2. STANDARD

2.1. General Requirements

- a. Flaggers must be trained and qualified and in place of direct Temporary Traffic Control.
- b. Construction entrances must be maintained to eliminate hazards, such as loose gravel or the accumulation of mud, to motorists
- c. Trailers and trucks will be inspected for loose debris and cleaned if needed prior to leaving the site.
- d. In areas of higher traffic volume, slow traffic should turn right out of construction entrances and be provided an acceleration lane where possible.
- e. Unless prohibited by traffic control devices, pedestrian traffic will have the right-of-way.
- f. Before employees begin work in the vicinity of vehicular or pedestrian traffic that may endanger them, warning signs or flags and other traffic-control devices must be placed in conspicuous locations to alert and channel approaching traffic.
- g. All applicable permits required for temporary traffic control and the use of barricades must be acquired.
- h. Attenuator trucks are highway safety vehicles equipped with an impact attenuating crash cushion intended to reduce the risks of injuries and fatalities resulting from crashes in construction work zones. Crash attenuators should be used if applicable to their level of operations.
- i. All requirements set forth in the Manual on Uniform Traffic Control Devices must be followed in addition to localized requirements for traffic control to include appropriate traffic control devices, and traffic control signs.



2.2. Temporary Traffic Control Plan

- a. A Temporary Traffic Control Plan must be established and reviewed with all affected employees to minimize disruption with road users and provide the details needed for Flaggers to direct temporary traffic control.
- b. When work activities occur on or adjacent to a roadway being used by the public, a flagger(s) must be assigned to direct and control traffic.
- c. All affected employees must wear proper PPE including high-visibility safety apparel in accordance with Class 2 ANSI standards for daytime and high-visibility safety apparel (must include high-visibility vest and pants) in accordance with Class 3 ANSI standards for nighttime.

2.3. Work Zones

- a. A work zone is an area of a highway with construction, maintenance, or utility work activities and is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles.
- b. Work Zones extend from the first warning sign or high intensity rotating, flashing, oscillating, or strobe lights on a vehicle to the END ROAD WORK sign or the last Temporary Traffic Control device.
- c. A work zone must be established, and supervision must drive through the work zone to verify that it is compliant with MUTCD and applicable state and client requirements and effectively controls and communicates hazards to motorists.
- d. Each Temporary Traffic Control work zone is different and affects the needs of each zone with many variables, such as:
 - Location of work
 - Highway type
 - Geometrics
 - Vertical and horizontal alignment
 - Intersections
 - Interchanges
 - Road user volumes



- Road vehicles mix such as buses, trucks, or cars
- Road user speeds

2.4. Temporary Traffic Control Zones

- Temporary Traffic Control zones are divided into advanced warning, transition, activity, and termination areas.

2.4.1. Advanced Warning Area

- The advance warning area is the section of highway where road users are informed about the upcoming work zone or incident area. The advance warning area may vary from a single sign or high intensity rotating, flashing, oscillating, or strobe lights on a vehicle to a series of signs in advance of the Temporary Traffic Control zone activity area.
- The table below details the recommended minimum spacing between advanced warning signs.

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
Urban (low speed)	100'	100'	100'
Urban (high speed)	350'	350'	350'
Rural	500'	500'	500'
Expressway/Freeway	1,000'	1,500'	2,650'

- Typical distances for placement of advance warning signs on freeways and expressways should be longer because drivers are conditioned to uninterrupted flow. Therefore, the advance warning sign placement should extend on these facilities as far as 1/2 mile or more.
- On urban streets, the effective placement of the first warning sign in feet should range from four (4) to eight (8) times the speed limit in mph, with the high end of the range being used when speeds are relatively high. When a single advance warning sign is used (in cases such as low-speed residential streets), the advance warning area can be as short as 100 feet. When two (2) or more advance warning signs are used on higher-speed streets, such as major arterials, the advance warning area should be extended.
- Since rural highways are normally characterized by higher speeds, the effective placement of the first warning sign in feet should be substantially longer, ideally between eight (8) to twelve (12) times the speed limit in mph. Since two (2) or more advance warning signs are normally used for these conditions, the advance warning area should extend 1,500' or more for open highway conditions.



2.4.2. Transition Area

- a. The transition area is a section of the highway where road users are redirected out of their normal path.
- b. Transition areas usually involve strategic use of tapers.
- c. Because it is impractical in mobile operations to redirect the road user's normal path with stationary channelization, more dominant vehicle-mounted traffic control devices, such as arrow boards, portable changeable message signs, and high-intensity rotating, flashing, oscillating, or strobe lights, may be used instead of channelizing devices to establish a transition area.

2.4.3. Activity Area

- a. The activity area is the section of the highway where the work activity takes place. It is comprised of the workspace, the traffic space, and the buffer space.
- b. The workspace is the portion of the highway closed to road users and set aside for workers, equipment, material, and a shadow vehicle if one is used upstream. Workspaces are usually delineated for road users by channelizing devices or, to exclude vehicles and pedestrians, by temporary barriers.
- c. Since there might be several workspaces (some even separated by several miles) within the project limits, each workspace should be adequately signed to inform road users and reduce confusion.
- d. The traffic space is the portion of the highway in which road users are routed through the activity area.
- e. The buffer space is a lateral and/or longitudinal area that separates road user flow from the workspace or an unsafe area and might provide some recovery space for an errant vehicle. Neither work activity nor storage of equipment, vehicles, or material should occur within buffer space.

2.4.4. Termination Area

- a. The termination area is a section of the highway where road users are returned to their normal driving path.
- b. The termination area extends from the downstream end of the work area to the last Temporary Traffic Control device such as END ROAD WORK signs, if posted.
- c. An END ROAD WORK sign, a Speed Limit sign, or other signs may be used to inform road users that they can resume normal operations.



2.4.5. Tapers

- a. Tapers may be used in both the transition and termination areas. Whenever tapers are to be used near an interchange ramp, crossroads, curves, or other influencing factors, the length of the tapers may be adjusted.
- b. Tapers are created by using a series of channelizing devices and/or pavement markings to move traffic out of or into the normal path.
- c. The formula to determine taper length is:
 - L = taper length in feet
 - W = width of offset in feet
 - S = posted speed limit, or off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in MPH

3. TRAINING

- a. All flaggers and temporary traffic control supervisors must complete, at a minimum, the Phillips Flagger training and any state-specific requirements initially, prior to performing this task. Training shall be provided for employees involved in planning, setting up, operation, maintenance, or removal of traffic control to the level of their responsibility. All affected employees must receive training on this program initially and regular refresher training as required, and that corresponding training documentation must be retained.

4. APPENDICES

- None



Burn Location: _____ Date: _____

Number of Pits / Piles Burning: _____ Inspected By: _____

Burn Supervisor: _____ Wind Speed at Time of Inspection (mph): _____

OBSERVATIONS	YES	NO	COMMENTS
A. General Observations			
At least 1,000 feet between open burning and occupied structures/businesses or those that could be occupied.			
Debris piles or open burning at least 100 feet away from overhead utility lines.			
30 foot fire lane around full perimeter and between debris piles – all lanes kept clear of vegetation or combustible material.			
At least 300 feet between burn sites and tree lines and/or outbuildings.			
20 pound fire extinguishers readily available within 50 feet of open burning or ample water supply available (fire department support or water truck with fire hose attached).			
Fire watch on duty at all times that fire, smoke, or embers are visible and remains on duty for at least 1 hour after last sign of fire.			
Only vegetative debris being burned.			
Brush piles in staging areas no more than 40 feet high with 1:1 ratio at base and at least 30 foot clearance between rows.			
Flammables and other fuels stored at least 50 feet from burn area.			
Dust and smoke control effective.			
Local fire department notified of location (list name of department and date of notification in comments section of this form) or proper burn permit.			
Open Burning Checklist being completed daily by Site Manager and available for review.			
Equipment has brush guards adequate to protect operator and doors are shut during operation.			
First aid kit and eye wash available on-site.			
All personnel wearing proper personal protective equipment (hard hat, safety glasses, Type 2 vest, steel toe shoes, long pants, shirt with 4 inch sleeves, and gloves as required).			
Equipment operator is working outside of smoke area.			
All personnel trained in Emergency Action Plan (EAP) requirements and EAP available on site.			



OBSERVATIONS	YES	NO	COMMENTS
B. Brush Pile Burning			
Pile not fueled when sustained wind speeds reach 15 mph and no more fuel applied until sustained wind speeds reduce to less than 15 mph.			
Burn piles wetted or knocked down when sustained wind speeds reach 20 mph.			
C. Pit Burning			
Burn pit is no deeper than 1 foot above ground water table.			
Pit has compacted layer on all feed sides.			
One foot high, non-combustible warning stops 10 feet from edge along all feed sides of pit.			
Top of burn pile does not exceed 10 feet above natural ground level.			
If top of burn pile extends above top of pit, sustained wind speeds defined for Brush Pile Burning observed.			
If top of burn pile does not extend above top of pit, pit not fueled after sustained wind speeds reach 25 mph – no more fuel added until sustained wind speeds decrease to less than 25 mph.			
If top of burn pile does not extend above top of pit, fires wetted or knocked down when sustained wind speeds reach 30 mph.			
Dimensions of pit does not exceed 200 feet by 200 feet.			
D. Y-Pad Burn Pits			
If top of burn pile extends above top of berm, sustained wind speeds defined for Brush Pile Burning observed.			
If top of burn pile does not extend above top of berm, pit not fueled after sustained wind speeds reach 25 mph – no more fuel added until sustained wind speeds decrease to less than 25 mph.			
If top of burn pile does not extend above top of berm, fires wetted or knocked down when sustained wind speeds reach 30 mph.			
Equipment operator does not enter pit more than twice the length of equipment while fire is actively burning.			
Top of burn pile does not exceed 10 feet above natural ground level.			
Inside dimensions of Y-Pad does not exceed 200 feet by 200 feet.			

Comments: