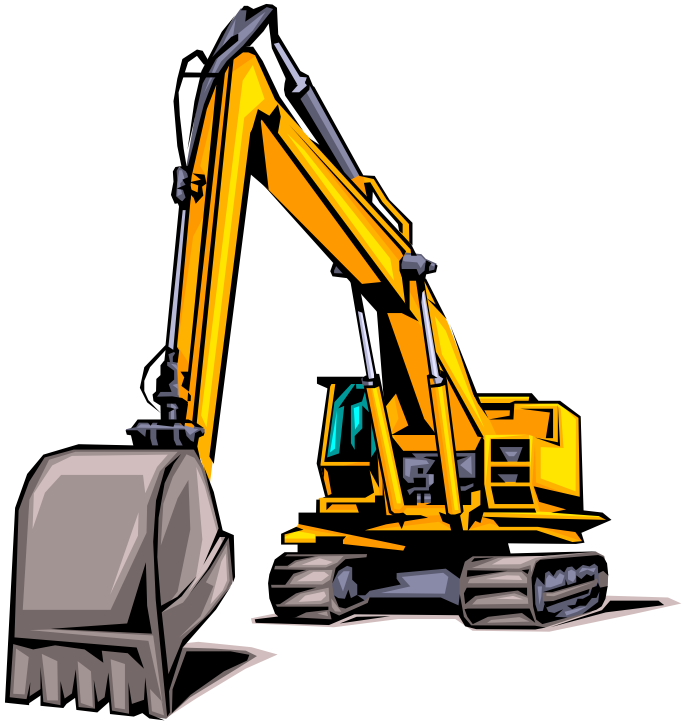
Workplace Safety Program



Our Mission...

To provide for infrastructure in the areas of underground utilities, structural repairs, and exploratory drilling.

Revised 8/10/22 AMF

Safety Policy Statement

At Terra Contracting, high quality safe production is our top priority. We believe personal and public safety is everyone's responsibility.

Terra Contracting, Inc. is committed to providing a safe working environment. Keys to safe operations include inspection and evaluation of workplace operations; utilization of safe operational procedures and equipment; safety training; making efforts to eliminate or reduce hazards as they are identified; and the use of personal protective equipment to reduce the potential for employee exposure to potentially hazardous conditions.

Our Workplace Safety Program addresses our concerns for safety, the prevention of workplace accidents, and individual responsibilities and has been developed pursuant to applicable federal and state statutes and regulations. The program underscores our dedication to safety and our understanding that safety in the workplace requires a united management- employee team approach.

Our goal for accidents/incidents is zero per year. We are committed to our Workplace Safety Program and encourage all of you to participate, follow the procedures, comply with the rules and to **Think and Work Safely.**

Justin Anderson 7/20/2021

Justin Anderson, President & CEO Date

The Safety Committee

Terra Contracting, Inc. has established a Safety Committee that is composed of management members, employee representatives and one employee alternate. The purpose of the Committee is to oversee the Workplace Safety Program (WSP) and to assist in its implementation, modification, and enforcement.

The CEO chair the Committee and ensure Safety Committee meeting minutes are maintained.

Safety Committee members are selected based on the following criteria:

1. Have obtained a period of continuous company employment which has enabled a better than average understanding of the operations in which they are involved;
2. Have an interest in employee safety, demonstrated commitment to employee safety and are willing to actively participate in safety program oversight;
3. Have the communication skills necessary for adequate participation in Safety Committee activities.

Management members are appointed to serve for the duration of their employment.

Employee representatives and alternate are selected to serve for a period of one year. Employees interested in becoming Safety Committee members should notify their immediate supervisor. New Committee members will be selected, based upon the qualification criteria described above. New members will be appointed and seated during the first scheduled quarterly meeting following their selection.

Safety Committee Members are:

Management Members	Employee & Field Mgmt. Members
Executive(s)	Superintendent or PM
	Foreman
Safety Specialist	Equipment Operator
QC/Safety Manager	Wet Crew member
Construction Manager	Dry Crew member
	Gas Crew member
	Concrete crew member
	Drilling member

Safety Committee functions:

1. Attend and participate in quarterly meetings
2. Be receptive and open to employee safety concerns. Encourage others to do the same. Ensure management has been advised of employee's concerns.
3. Review accident, incident, near miss, property damage reports and discuss any corrective actions taken. Review formal safety inspection/survey reports to ensure hazards have been appropriately addressed
4. Assist, as directed, in the investigation of employee safety complaints and present new safety information forms at the next committee meeting.
5. Discuss and report on unfinished business of the previous meeting, if any.
6. Participate, when requested, in providing job specific safety training and accident investigation assistance.
7. Assist in recommending suitable hazard elimination or reduction measures when hazards are discovered in their work areas or during inspections and investigations.
8. Distribute safety information and safety equipment to employees, as required.
9. Review, evaluate, and audit safety and health programs annually. Assist in program revision, and update.
10. Discuss new ideas for improving the overall effectiveness of the safety program.
11. Maintain minutes of the meeting. Records must be maintained for at least 3 years.

Position Responsibilities

HR/Safety Specialist/Manager responsibilities:

1. Oversight and monitoring of all insurance and health program related activities.
2. Assist in the development and execution of various policies and procedures.
3. Allocation of resources appropriate to support risk management program related activities.
4. Assist in the scheduling and organizing of the quarterly Safety Committee meeting and maintaining committee-meeting minutes.
5. Co-development and facilitation of all safety-related training and/or ensuring that proper training is developed and conducted in a timely and efficient manner.
6. Coordinate vendor-provided training and certification programs that benefit Terra Contracting and its employees.

7. Review all accident, incident, near miss and property damage reports and presenting these reports to the Safety Committee and senior management for review and discussion.
8. Assist in the management of Safety and Health Program related records and files, to include all source documents.
9. Report prescribed safety practice and procedure violations to senior management for disciplinary determinations.
10. Assist in providing Loss Runs, ARM and OSHA files to senior management and Human Resources for review quarterly or as needed.
11. Oversight and monitoring of all safety and health program related activities, including weekly safety meetings for yard employees.
12. Assist in the development and execution of various safety policies and procedures.
13. Allocation of resources appropriate to support safety management & rewards program related activities.
14. Assist in the scheduling and organizing of the quarterly Safety Committee meeting and maintaining Committee meeting minutes.
15. Review and recommend disciplinary measures to senior management and Human Resources regarding Superintendents, Foremen when prescribed safety practices and procedures have been violated.

PM / Superintendent Responsibilities:

Educate:

1. Encourage Foremen and employees to follow safe work practices by setting good safety examples and by being receptive to any employee safety concerns. In addition, they will hold foremen and employees accountable to adhering to all safety standards.
2. Coordinate with Safety Manager to ensure that all new hires have been provided training and provided with an opportunity to read and sign acknowledgement of the Safety and Health Programs.
3. Ensure that Foremen and Safety Specialist provide employees with job specific safety training and that training documentation is submitted to the Safety Manager, upon completion.
4. Ensure weekly tailgate meetings are conducted to ensure that employees are up to date on relevant workplace safety matters.

Respond:

5. Conduct informal, daily inspection of their assigned areas to ensure compliance with State, Federal and Vendor requirements and Company safety rules, to eliminate or reduce hazards and to ensure Foremen and employees are utilizing safe work practices and protective equipment.
6. Ensure all accidents, incidents and near misses which occur in assigned areas involving either employees, vendors, general public or property are investigated; take appropriate action to eliminate or reduce hazards, ensure appropriate reports are immediately completed and submitted to Human Resources and Safety Manager, within 24 hours.
7. Employees who violate Terra Contracting's rules regarding safety will be subjected to disciplinary action up to and including termination.

Foremen responsibilities:

Educate:

1. Educate employees to follow safe work practices by setting good safety examples and by being receptive to any employee safety concerns. In addition, they will hold leads and employees accountable to adhering to all safety standards.

2. Ensure all new hires have been provided training and provided with an opportunity to read and understand the Safety and Health Programs.
3. Ensure that job specific safety training is provided prior to initial work assignment and that training documentation is submitted to Safety Department, upon completion.
4. Ensure weekly tailgate meetings are conducted to make sure that employees are up to date on relevant workplace safety matters.

Respond:

5. Conduct formal/documented, daily inspection of their assigned areas to ensure compliance with OSHA Company safety rules, to eliminate hazards and to ensure employees are utilizing safe work practices and protective equipment.
6. Investigate all accidents, incidents and near misses which occur in their assigned areas involving either employees or property; take appropriate action to eliminate or reduce hazards, complete appropriate reports and submit copies of reports generated to the Company's Risk Manager, upon completion.
7. Employees who violate Terra Contracting's rules regarding safety will be subjected to disciplinary action up to and including termination.

All Employees' responsibilities:

1. Inspect their work areas and equipment prior to commencing work on a daily basis and as required throughout the day.
2. Utilize personal protective equipment when required and/or directed by management.
3. Maintain Personal Protective Equipment (PPE) and/or reporting any/all deficiencies to their immediate supervisor, PM, or -Safety Specialist.
4. Maintain proper certification and licensing commensurate with their position.
5. Communicate immediately any concerns about job safety to the foreman, superintendent, Safety Specialist, a Safety Committee member or by utilizing Anonymous reporting hotline.
6. Report immediately all accidents, incidents, and near misses, including property damage, to the Foreman and completing the necessary forms when injured/directed.
7. Report immediately any and all violations of the Company's Drug and Alcohol policies of which they become aware.
8. Attend all safety related training sessions and adhering to policies/procedures as set forth in such training courses.
9. Attend safety meetings, when scheduled.
10. Respond appropriately to Inspectors' requests regarding safety violations.
11. Cooperate during any accident, incident, near miss, or property damage investigations, area safety inspections.
12. Comply with company safety rules, drug and alcohol testing, policies and reporting procedures.
13. Employees who violate Terra Contracting's rules regarding safety will be subjected to disciplinary action up to and including termination.

Hazard Identification and Control

Terra Contracting assists Superintendents and Foremen in identifying and addressing safety and health hazards through the use of internal and external Safety Inspectors. Company sponsored Inspectors should identify themselves to the on-site and should be accompanied by the Foreman during their visit. The goal of these inspections is to identify internal issues and to make recommendations concerning the correction or reduction of any/all hazards. Further, it is the goal of such inspections to allow for the communication of the overall safety status of the site. Safety hazards identified during the survey should be corrected immediately and all repeated violators will be subjected to corrective measures. Senior Man-

agement will review the written reports and verify that the hazards identified were addressed. The written reports are submitted to the Safety Committee for review and filing during the next regularly scheduled safety committee meeting.

Superintendents and Foremen have been identified as requiring "Competent Person (CP)" training. In association with this training, Superintendents and Foremen are responsible for conducting and documenting daily job-site safety inspections. Superintendents and Foremen will be required to use the Daily Trench Log form to document their daily job-site inspections. These forms must be completed daily prior to the workday.

Superintendents and Foremen are required to conduct formal/documented safety inspections of their work areas daily, to identify and eliminate or reduce hazards, to ensure employees under their direction are properly utilizing (PPE), and to make best efforts to ensure work progresses in a safe manner. Superintendents will also analyze their work sites to determine high hazard areas such as trenches five feet or more in depth, by examining blueprints and related material and complying with established specific safety requirements. Superintendents and Foremen will attempt to make every possible effort to involve their employees in identifying and resolving safety concerns.

Employees are expected to conduct safety inspections of their work areas and equipment daily and notify their foreman of any unsafe conditions. Employees are encouraged to report any unsafe acts/practices and conditions immediately to their Foreman, superintendent, as well as the HR/Safety Specialist or Safety Committee representative immediately.

If an employee cannot resolve a safety concern or safety complaint with his or her Foreman, the employee may contact the Safety Specialist or utilize anonymous reporting hotline. Each complaint will be investigated and if the complaint has validity, corrective action will be implemented as quickly as possible. The resolution or correction of the safety complaint or suggestion will be verbally communicated to staff as necessary.

TERRA CONTRACTING, INC. WILL NOT RETALIATE AGAINST ANY EMPLOYEE FOR REPORTING HAZARDS OR POTENTIAL HAZARDS OR FOR MAKING POSITIVE SUGGESTIONS RELATED TO SAFETY. ANY AND ALL CONCERNS REGARDING THIS POLICY SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF A MEMBER OF SENIOR MANAGEMENT, SAFETY MANAGEMENT AND/OR HUMAN RESOURCES.

Permit-Required Confined-Space Program

The Permit-Required Confined Space Program is a separately managed program and is attached as Addendum A to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures in confined spaces may result in corrective action up to and including termination.

Vehicle Fleet Safety & Loss Prevention

Definition of Terms

For the sake of understanding, the term "vehicle" in regard to drivers of fleet or equipment operating on public-right-of-way. Motor Vehicle Licensing for operational use of equipment is not required.

Driver Qualification

Only pre-qualified and authorized drivers may operate company vehicles. Human Resources will maintain an authorized driver list and limit the operation of company vehicles to these drivers. Drivers will be identified through the Master Driver List and will only be authorized to operate vehicles/equipment listed.

Each driver's license to operate a motor vehicle will be verified as necessary and a copy of the driver's Motor Vehicle Record (MVR) shall be furnished by employee, and bi-annually thereafter, to ensure that operators of company vehicles maintain a good driving record. It is the overall responsibility of any and all drivers to maintain proper and acceptable driving records and all licenses required of their position. All motor vehicle citations, arrests, violations and accidents, in com-

pany ***and personal vehicles***, must be reported to Human Resources as soon after the incident as practical. Failure to do so may result in disciplinary action up to and including termination.

Driver Responsibility

It is every driver's responsibility to drive defensively and to avoid accidents. Drivers must safely maintain each vehicle under the driver's control. Defensive Driving is defined as "Driving to avoid accidents ***in spite of the incorrect actions of others, and the adverse conditions of weather, visibility, light, and traffic*** that the driver may encounter on the road." Failure to operate a Company vehicle safely will result in corrective action up to and including termination.

A "preventable" accident is one in which the driver failed to exercise every *reasonable precaution* to prevent the accident. Preventable accidents are defined in the National Safety Council's "Guide for Determining Preventability of Motor Vehicle Accidents," which is incorporated in this program by reference.

Suspension of driving privileges may be made for the following offenses:

- Charge of driving under the influence of alcohol or drugs, including implied consent refusal (refusal to take blood alcohol test and or urine analysis).
- Loss due to one's willful neglect
- Hit and run or otherwise leaving the scene of an accident.
- Any felony, homicide or manslaughter arrest, citation or conviction involving the use of motor vehicles.
- Reckless, negligent or careless driving.
- License suspension or revocation.
- Other infractions as deemed appropriate by management.

Rules of Conduct for Drivers

- Do not drive your company vehicle if:
  - you have been drinking alcoholic beverages or are otherwise impaired due to prior alcohol consumption; or
  - you are under the influence of *any* drugs that could affect your driving ability. This includes prescription and over-the-counter medications; or
  - you are too tired and/or ill to safely operate the vehicle.
- Obey all traffic laws and posted restrictions.
- Be courteous to other drivers and pedestrians. Remember, our Company's reputation is at stake. Discourteous driving reflects back not only on The Company but also directly on YOU.
- Maintain at least a 2-second following distance from the vehicle ahead under excellent driving conditions, 3-seconds if over 40 mph. If you encounter adverse conditions of road, traffic, light, visibility or weather, add a second or two for good measure.
- Help other drivers to safely negotiate the highway. If it is safe to do so, allow other drivers to merge into your lane by backing off and letting them in. This applies at freeway on- ramps as well. This courtesy will help you avoid accident involvement and make the highway a more pleasant place to be.
- Do a daily check of the vehicle you drive. Complete the pre-trip inspection, noting any defects, and turn it in to the Equipment Manager/Operations. If the driver thinks the vehicle is unsafe they must contact Supervisor.
- Immediately report all accidents to your supervisor.

- Only hands-free communication may be used. No talking or texting while driving is permitted.
- Keep your vehicle clean and maintained.
- Dashboard and inside cab of vehicle shall be kept clear of all material

Vehicle Use Policy

Company vehicles are intended for company business use. Personal use may be authorized when it is deemed to be in the best interest of the company and specific permission has been granted by executive level management. If permanently assigned a company vehicle, its use is restricted to the assigned driver only. Use by family members, friends or other parties is strictly prohibited.

Seat Belt Use Policy

Use of seatbelts are MANDATORY for all occupants in company vehicles.

Motor Vehicle Reports (MVRs)

1) MVRs shall be obtained for each and every Terra Contracting employee whose job description requires driving a company-owned vehicle and or heavy equipment operators. This requirement includes those employees whose positions require regular access to "pool" vehicles. The employee shall provide the employer with a current MVR.
2) MVRs are to be evaluated according to the MVR Driver Evaluation.
3) MVRs will be obtained:
   a) Prior to assignment or use of a company vehicle (preferably prior to employment);
   b) Bi-Annually, thereafter;
   c) After involvement in an accident; and/or
   d) Any other time management deems it advisable.
4) HR/QC manager will review MVRs using the driver evaluation form. Any driver who grades into the "borderline" category, in initial hiring or during annual review of driver's records, will require an additional driver training class before being placed onto the authorized driver list.

What To Do At The Accident Scene

In spite of our best efforts to avoid an accident, we realize they can happen and we must be prepared when they do. If you are involved in a vehicle accident, regardless of the fault or depth of damage/injury, you must do the following:

- Stop immediately!
- If you are not injured, take steps to prevent other vehicles from becoming involved. If possible put out emergency reflectors, or cones.
- If you or someone else are injured, seek assistance immediately. If you have a cell phone, dial 9-1-1 immediately. If not, ask for assistance in calling 9-1-1.
- If possible, render first aid.

- As soon as possible, contact the following Company personnel: (1) Your immediate supervisor; (2) Safety; or (3) Senior Management.
- Complete the Driver's Report in the Accident Packet located in the vehicle's glove box.
- If applicable, hand out witness cards and get names, addresses, and telephone numbers of witnesses.
- Do not admit fault or liability at the accident scene, even if you feel you may have been at fault.
- Do not accuse anyone on the scene. Don't engage in argumentative or aggressive behavior. Remain calm.
- Do not pursue anyone fleeing from the scene. Write down as much descriptive information including license plate, make/color car, etc. to be helpful. Let law enforcement handle uncooperative parties.
- Take photographs of the accident scene, not only of damage or vehicles but including surrounding area as well – remember to think BIG PICTURE.
- Complete all necessary forms.
- Keep all forms, statements, photos, etc. together for submission to the Company's Safety Office.

In many cases, determining the person at fault for an accident is done only after an extensive and exhaustive investigation. Remember, as a representative of Terra Contracting, you must remain courteous to others at the scene, but never take the blame. Let the investigators determine responsibility Do not discuss the details of the accident with anyone other than a licensed authority such as a police officer, our insurance company representative or broker, or Safety & Human Resources without getting prior approval from Terra Contracting's management.

Upon returning to the office, submit all information to your direct supervisor and Safety/HR within 24 hours.

Reporting On-The-Job Injuries

Employees must immediately report **every** on-the-job injury or near-miss incident they sustain to their Foreman or Superintendent, regardless of how minor it may seem. This includes bumps, scratches, suspected strains, sprains or property damage, etc. The purpose of this policy is to protect you, our employee and the Company.

All injuries require the employee complete a " C-1" Form (Employee Report).

When outside medical treatment and/or examination is required or directed, the employee will utilize a medical facility designated by our managed care organization. The physician or medical facility will require the employee to complete their portion of the C-4 Form. Employee shall deliver copies of all forms and updates to Human Resources.

Accident Investigation Procedures

When accidents involving employee injuries occur, the immediate priorities are to **provide appropriate first aid and/or medical attention and to SECURE** the accident area, taking steps to prevent any further employee exposure or damage from occurring.

The Foreman, Superintendent, and Safety Specialist/Manager are responsible for investigating all accidents, incidents and near misses involving either employee or property damage.

The primary purpose of the investigation is to identify hazardous conditions, inappropriate or unsafe practices, and to develop preventative measures that can be taken to eliminate or reduce the potential for future injuries or incidents similar to the one under investigation. The Foreman and/or Superintendent are responsible for making sure the completed forms are promptly submitted to the Safety Manager for review and retention.

When an employee requires/receives **medical attention** as a result of a workplace injury, the injured employee and any employee(s) directly involved in the incident will be required to submit to a drug/alcohol test. In an accident or incident, which causes injury or damage to property, including any utilities (Gas, water, sewer, power, phone, fiber optic, etc.), will be subjected to a Drug Screening test. Failure to submit to such a test will result in their immediate suspension and disciplinary

action up to and including termination. The HR/Safety Specialist will complete the “C-3” Form (Employers Report of Industrial Injury or Occupational Disease) and submit to the Company’s carrier. Information obtained during the accident investigation is essential to the preparation and initiation of a worker's compensation claim.

The HR/Safety Specialist/Manager will supply copies of investigation reports to Senior Management and during the quarterly Safety Committee meetings as a means to educate and eradicate any/all unsafe working conditions. Safety Committee members will review this information and assist in recommending suitable corrective measures for the elimination or reduction of hazards as applicable.

Disciplinary Procedures

The Workplace Safety Program (WSP) has been developed to ensure the safety of employees in all our workplaces. It cannot be maintained without the support of management and employees alike.

If a safety rule is violated and the individual exposes himself or herself or another employee to a known hazard, the employee will be suspended pending investigation consistent with Company policy. Discipline may range from a verbal warning to termination, at the sole discretion of Company management. All disciplinary actions will be documented and retained as mandated by law.

Personal Protective Equipment

Personal Protective Equipment (PPE) is provided to protect employees from the hazards of construction. It is the employee’s responsibility to wear the PPE that is appropriate for the type of work you are performing. The below is a brief outline of required PPE items, the Company’s full PPE Program is located in Addendum P.

A Personal Protective Equipment Assessment has been completed for all job descriptions within the Terra Contracting Company. Terra Contracting provides Safety Glasses, Hearing Protection, Hard Hats, Respirators and Reflective Safety Vest as required by OSHA at no charge to the employee(s).

If we receive any notice(s) of a Safety Violation from any of our developers and or clients; and have fines imposed by them, the employee will be responsible for the amount of the imposed fine.

Hard Hats may not be altered in any way. Example: Decals, Painting, Imprinting etc. Baseball caps will not be worn under the Hard Hat. Form fitting head gear such as Bandanas or Knit caps are permissible.

Foot Protection in the form of heavy work boots at least 3” above the ankle are required and must be hard toed boots. The employer shall ensure that each affected employee uses protective footwear when working in areas where the danger of foot injuries due to falling or rolling objects, or objects piercing the sole, ANSI Z41-1991, American National Standard for Personal Protection Footwear,” which is incorporated by reference as specified in Sec. 1910.6, or shall be demonstrated by the employer to be equally effective. Terra Contracting is not required to provide foot protection for employee(s). All office staff must wear close toed shoes. Open toed shoes are not permitted on the premises.

Any employee working at a jobsite, or in the yard must wear a shirt that has sleeves a minimum of 3” from the seam.

As Stated above, any employee found not to be wearing the required foot protection as described will be subjected to Suspension and or Termination.

General Waste Management Program

The General Waste Management Program is a separately managed program and is attached as Addendum C to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Hazard Communication Program

The Hazard Communication Program (HAZCOM) is a separately managed program and is attached as Addendum D to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Asbestos Awareness

The Asbestos Awareness Program is a separately managed program and is attached as Addendum E to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Bloodborne Pathogens

The Bloodborne Pathogen Program is a separately managed program and is attached as Addendum F to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures of the program may result in corrective action up to and including termination.

Electrical Safety

The Electrical Safety Program is a separately managed program and is attached as Addendum G to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures of the program may result in corrective action up to and including termination.

Lockout Tagout

The Lock Out / Tag Out Program is a separately managed program and is attached as Addendum H to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Fire Prevention

The Fire Prevention Program is a separately managed program and is attached as Addendum I to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

First Aid

The First Aid Program is a separately managed program and is attached as Addendum J to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Forklift Safety

The Forklift Safety Program is a separately managed program and is attached as Addendum K to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Hand Tools

The Hand Tool Safety Program is a separately managed program and is attached as Addendum L to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Hazardous Waste Operations & Emergency Response (HAZWOPER)

The Hazardous Waste Operations & Emergency Response (HAZWOPER) Program is a separately managed program and is attached as Addendum M to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Hotwork & Welding

The Hotwork & Welding Safety Program is a separately managed program and is attached as Addendum N to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Ladders

The Ladder Safety Program is a separately managed program and is attached as Addendum O to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Lead Awareness

The Lead Awareness Program is a separately managed program and is attached as Addendum P to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Infectious Disease/COVID Policy

The Infectious Disease/COVID Program is a separately managed program and is attached as Addendum Q to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Hearing Conversation

The Hearing Conversation is a separately managed program and is attached as Addendum S to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each

employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Heat Illness Prevention

The Heat Illness Prevention Program is a separately managed program and is attached as Addendum R to this Program. It is, however, important for employees to understand that a program exists and to understand the restrictions required of each employee. Failure to follow established safety policies and procedures may result in corrective action up to and including termination.

Workplace Safety Program
Acknowledgement Form

I, _____ acknowledge the following:
[print name]

- I have received and read a copy of Terra Contracting, Inc.'s Workplace Safety Program (WSP), and I agree to follow the policies and procedures of the WSP . I understand that the policies, procedures and rules as described are subject to change or may be revised based on the company's particular circumstances of a given situation. I further understand that it is my responsibility to continually educate myself regarding the safety and health related policies of the Company.

- I understand that consistent with our WSP, that training will be made available to me by Terra Contracting and/or various service providers (i.e., Southwest Gas Company, SCATS, etc.) to compliment the information contained herein. As such, I will make myself available for such training.

- I understand that it is my responsibility to seek assistance if I do not understand or have questions about any rule, policy or procedure or to remedy any safety or workplace concern.

- I understand that as an employee of Terra Contracting I may be held liable for my actions in accordance with established Company policies & procedures and any and all applicable laws. I understand that this may include retraining and corrective action, up to and including termination or possibly fines or imprisonment.

- I understand that nothing in Terra Contracting's Workplace Safety Program creates a contract of employment or changes the at-will employment relationship.

_____
Employee's Signature

_____
Employee's Printed Name

_____
Date

Copies: Employee; Personnel File

Agreement to Return and
Care for Company Equipment

I acknowledge that while I am working for Terra Contracting, Inc., I am expected to take proper precautions to care for company equipment. I understand that upon termination, I am expected to return all property of Terra Contracting, Inc., in proper working order. This agreement includes, but is not limited to, the following computer equipment, GPS, cell phones, pagers/beepers, autos/trucks, etc. I understand that continued failure to return equipment may be considered by the company to be theft and may lead to criminal prosecution.

_____
Employee's Signature

_____
Employee's Printed Name

_____
Date

Copies: Employee; Personnel File

Addendum A: Permit-Required Confined Space (PRCS) Entry Program

Each workplace has been surveyed to determine the presence of Permit-required Confined Spaces (PRCSs). Surveys are conducted in accordance with applicable federal and state regulations. All manhole sewer entry operations must be

construed as PRCS entries. Sewer systems do not allow for complete isolation of the work area, as atmospheres may suddenly and unpredictably become lethally hazardous, and therefore present the potential for danger to entrants.

Sewer system entry operations present the potential for employee exposure to the following hazards:

1. Engulfment by sudden flooding - due to rain or fire suppression activity.
2. Presence of toxic gases - Hydrogen sulfide equal to or greater than 10 parts per million (ppm); carbon monoxide equal to or greater than 35 ppm; or flammable or other hazardous materials released into the sewer systems during nearby industrial or transportation accidents.
3. Presence of flammable vapors - equal to or greater than 10 percent of the Lower Flammable Limit (LFL).
4. Oxygen deficiency - Concentration of oxygen in the atmosphere equal to or less than 19.5 percent by volume.

This program establishes the procedures, practices and special protective measures, that are required and must be adhered to when sewer systems are entered.

SURVEILLANCE

The area which surrounds the PRCS entry point shall be surveyed to determine that **hazards** such as; moving vehicles, drifting vapors or liquids leaking from nearby storage tanks or above ground piping, exhaust emissions from vehicles operating in close proximity or sudden flooding by rain or fire suppression activities, are not present.

BARRICADE

Vehicle barricades will be positioned in such a manner as to prevent vehicle and/or pedestrian entry into the immediate proximity of the PRCS manhole to be entered. An adequate amount of space around the PRCS manhole must be barricaded to provide safe access and egress for the entrant(s) and positioning of mechanical ventilation equipment. When additional manhole covers are opened to accommodate space ventilation, the openings require additional barricade placement to prevent vehicle and/or pedestrian exposure to the openings.

SPACE VENTILATION

Open the PRCS manhole cover (which will allow the closest proximal entrance to the PRCS area) requiring work operations. When possible, additional, adjunct PRCS manhole covers will be opened to augment clean air intake and natural ventilation of the PRCS.

Mechanical ventilation equipment (intrinsically safe) shall always be utilized and positioned in such a manner as to allow the intake of 100 percent outside, clean air, directly into the PRCS area to be occupied. The ventilation equipment will be allowed to operate for at least 10 minutes before the atmospheric pre-entry testing procedure is conducted and shall continue to operate for the duration of the operation(s) within the PRCS.

PRE-ENTRY TESTING

Prior to entry, atmospheric testing shall be conducted with a calibrated direct reading instrument(s) to determine that the PRCS to be occupied, does not present the hazards of a deficient oxygen supply, flammable vapors sufficient to present a lower flammable limit (LFL), a hydrogen sulfide concentration greater than 10 ppm or a carbon monoxide concentration greater than 35 ppm. The pre-entry test results shall be recorded and the record maintained at the location of entry for the duration of work in the PRCS. The designated, authorized entrant will conduct the test utilizing calibrated, direct reading atmospheric testing/monitoring equipment; certify in writing that all hazards have been eliminated prior to entry; record the pre-entry test results; and maintain the PRCS entry form at the location of entry. Other authorized entrants will be allowed to review the pre-entry test results, prior to entering the PRCS.

HYDROGEN SULFIDE AWARENESS

Hydrogen sulfide is a colorless, flammable, extremely hazardous gas with a “rotten egg” smell. It occurs naturally in crude petroleum and natural gas, and can be produced by the breakdown of organic matter and human/animal wastes (e.g.,

sewage). It is heavier than air and can collect in low-lying and enclosed, poorly ventilated areas such as basements, manholes, sewer lines and underground telephone/electrical vaults.

1. Can be smelled at low levels, but with continuous low-level exposure or at higher concentrations you lose your ability to smell the gas even though it is still present.
2. At high concentrations your ability to smell the gas can be lost instantly.
3. DO NOT depend on your sense of smell for indicating the continuing presence of this gas or for warning of hazardous concentrations.

4. Health effects vary with how long, and at what level, you are exposed. Asthmatics may be at greater risk.
    a. Low concentrations – irritation of eyes, nose, throat, or respiratory system; effects can be delayed.
    b. Moderate concentrations – more severe eye and respiratory effects, headache, dizziness, nausea, coughing, vomiting and difficulty breathing.
    c. High concentrations – shock, convulsions, unable to breathe, coma, death; effects can be extremely rapid (within a few breaths).

Before entering areas with possible Hydrogen Sulfide: All employees with the potential to be exposed above the OEL or PEL shall be trained in hydrogen sulfide (H2S) awareness.

- The air must be tested for the presence and concentration of hydrogen sulfide by a qualified person using test equipment. This individual must also determines if fire/explosion precautions are necessary.
- If gas is present, the space should be ventilated.
- If the gas cannot be removed, use appropriate respiratory protection and any other necessary personal protective equipment (PPE), rescue and communication equipment. Atmospheres containing high concentrations (greater than 100 ppm) are considered immediately dangerous to life and health (IDLH) and a self-contained breathing apparatus (SCBA) is required.
    - Employees shall be trained according to Terra Contracting's Respiratory Protection Program including medical evaluations, fit testing, and selected respirator training.

- Alarms must activate at 10ppm and 20ppm
    - Immediately evacuate area if alarm sounds and appropriate PPE is not in place.
    - Employees shall be trained on site specific evacuation procedures prior to work in possibly contaminated area.

Employees with the potential to be exposed above the OEL or PEL shall be required to attend instructor led training for a minimum of 3.5 hours, with an annual refresher of the same length. Such employees will also be trained in the operation and maintenance, bump testing, and accurately calibrate issued gas detection equipment.

CONTROL OF ENGULFMENT AND ATMOSPHERIC HAZARDS

Pumps and lines. All pumps, lines and laterals which may reasonably be expected to present potential for contamination to the air or engulfment of the occupied space, shall be disconnected, blinded, blocked and locked out, or effectively isolated by other means, to prevent development of dangerous air contaminant or engulfment. Isolation procedures, which are performed, will be recorded on the PRCS entry form.

PRCS ENTRY FORM

A PRCS entry form, specific to sewer system operations, can be found in Forms section of this handbook. The form requires verification and certification by an authorized entrant of adherence to and compliance with the procedures specified by this program. It locates the PRCS to be entered, specifies the purpose of entry, identifies the authorized entrant(s) by name, and reflects the atmospheric tests which are performed prior to entry, describes isolation measures, authorizes entry and operations without permit or attendant and allows that pertinent notes on the operations be recorded.

The PRCS entry form shall be kept in the immediate area of the confined space for the duration of operations within the space and shall be retained, when canceled, for at least 1 year to facilitate the review of the PRCS program. The PRCS

entry form must be completed before entry into and work within the PRCS sewer system can proceed and will be automatically canceled when entrant(s) evacuate as specified in the Entry Procedures section of this program.

PRCS entry forms will be submitted to the Director of Safety, upon completion of the PRCS sewer system work operations.

ENTRY PROCEDURE

1) A copy of this PRCS Entry Program and the PRCS entry form, specific to the entry, shall be located immediately adjacent the PRCS manhole opening.
2) The area that surrounds the PRCS entry point shall be surveyed in accordance with the Surveillance section of this program.
3) Vehicle barricades will be positioned in accordance with the Barricade section of this program.
4) The PRCS manhole cover will be completely removed, securely positioned on the ground to allow the entrant(s) unobstructed access and egress. The PRCS will be ventilated in accordance with the Space Ventilation section of this program. Mechanical ventilation equipment will always be utilized.
5) Pre-entry atmospheric test will be conducted in accordance with the Pre-entry Testing section of this program. When pre-entry atmospheric test results indicate the presence of atmospheric hazards addressed by this program, the PRCS will not be entered.
6) The procedures prescribed in the control of engulfment and atmospheric hazards section of this program will be employed prior to entry.
7) Authorized entrant(s) will equip themselves with the following:
   a) a designated continuous atmospheric monitoring device, verify its operation and maintain the equipment on their person or in their immediate vicinity during work operations within the PRCS.
   b) a designated two-way radio and test to verify adequate communications prior to entry and periodically during the operation within the PRCS.
   c) equipment for lighting (Class 1, Division 1 or battery powered), isolation, operations, etc.
8) An authorized entrant will complete the PRCS entry form; verify pre-entry provisions are completed and acceptable; and notify the facilities office at the time of PRCS entry and exit.
9) Entrants will immediately evacuate the permit space and the PRCS entry form will automatically cancel when:
   a) any of the atmospheric monitoring equipment alarms are sounded;
   b) entrant(s) communications are interrupted, or;
   c) the entrant cannot safely perform all his designated duties.

   NOTE: CANCELED PRCS ENTRY FORMS MUST REFLECT NOTATIONS REGARDING THE REASON(s) FOR EVACUATION.
10) Work will not resume until such time as:
   a) a determination is made as to how the hazardous atmosphere developed;
   b) measures are implemented to protect entrant(s) from the hazardous atmosphere before re-entry; and
   c) Atmospheric tests are conducted in accordance with the Pre-entry Testing Procedure section of this program.
11) A new PRCS entry form will be completed prior to re-entry of an evacuated PRCS and the new form attached to the original/canceled PRCS entry form(s).

DUTIES OF AUTHORIZED ENTRANTS

1) All authorized entrants shall:

a) Be informed of and understand the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

b) Use proper atmospheric testing and monitoring, ventilating, communications, lighting, traffic barriers, ladders and other equipment necessary for safe PRCS entry.

c) Verify and certify that all procedures specified by this program are complied with and complete the PRCS Entry Form.

d) Monitor activities and atmospheric conditions inside the space to ensure that it is safe to remain and order other entrant(s) to evacuate when conditions within the space are found to present hazard to the entrant(s).

e) Exit from the permit space as quickly and as safely as possible whenever:

i) the order to evacuate is given by any other authorized entrant;

ii) the entrant recognizes any warning sign or symptom of exposure to a dangerous situation;

iii) the entrant detects a prohibited or unsafe working condition; or

iv) an evacuation alarm is sounded.

f) Terminate the entry and cancel the PRCS entry form when:

i) entry operations covered by the form have been completed; or

ii) a condition that presents danger to entrant(s) is discovered in or near the PRCS.

g) Remove unauthorized individuals who enter or attempt to enter the PRCS during PRCS operations.

h) Determine, whenever responsibility for a PRCS operation is transferred and at intervals dictated by the hazards and operations performed within the space, that PRCS operations remain consistent with acceptable PRCS conditions as described by this program.

DUTIES OF AUTHORIZED ATTENDANTS

1. Attendant must be on duty and stationed outside a permit required space when entrants are inside:

a. Know the hazards. In the case of the attendant, this can often include using air monitoring equipment to keep a close watch on the atmospheric conditions inside the confined space and communicate any changes observed.

b. Know the behavioral effects of the hazards.

c. Be able to identify the authorized entrants.

d. Remain outside until relieved.

e. Communicate with entrants throughout the work period including in case of emergency.

f. Monitor and evacuate entrants if necessary.

g. Summon rescue, if needed.

h. Warn away unauthorized persons.

DUTIES OF AUTHORIZED ENTRY SUPERVISOR

1. Know the hazards.
2. Verify safe entry conditions.
3. Terminate entry and cancel permit.

4. Verify availability and effectiveness of rescue services.
5. Remove unauthorized persons.
6. Ensure acceptable entry conditions are maintained.

TRAINING

All employees assigned to and authorized to perform PRCS/sewer system entry related functions shall be provided training and develop the understanding and competence required by applicable federal regulations. Training will be provided upon the initiation date of this program, prior to the employee performing duties covered by this program, updated when personal assignments or procedures change, and reviewed annually.

Authorized entrants will be:

1) afforded an opportunity to read, review and understand the provisions and requirements of this Permit Required Confined Space (PRCS) Entry Program.
2) instructed in and develop an understanding of the hazards which may be faced during sewer system entry.
3) Instructed in and provided information on the mode, signs or symptoms and consequences of the potential sewer system air contaminant hazard exposures.
4) instructed in the use, maintenance and calibration of the atmospheric testing and/or monitoring devices(s), communication equipment and ventilation equipment designated for PRCS use;
   a) afforded an opportunity to read, review and discuss the Manufacturer's Operation Manual(s).
5) instructed in the potential hazards for rescue workers, the communication of emergency PRCS situations and the necessity for summoning fire department assistance.
6) instructed in the proper use of the following designated PRCS equipment:
   a) traffic barriers;
   b) mechanical ventilation equipment;
   c) isolation devices and/or equipment; and
   d) any other equipment necessary to safe PRCS operations.
7) provided practical instruction on a representative PRCS sewer system entry operation.
8) required to demonstrate their personal proficiency in the proper use of PRCS designated equipment and competence for complying with the procedures prescribed by this program.
9) Refresher training will be provided annually and when it is necessary to re-establish an employee's proficiency for performing tasks relative to this program. All training will be documented and certify the employee's qualification to conduct/perform all PRCS entry related functions.

OUTSIDE CONTRACTOR

When another employer is contracted by Terra Contracting to perform work that involves PRCS entry, the contractor and the contractor's employees must comply with the permit-required confined space requirements of applicable federal regulations. Terra Contracting's superintendent will ensure compliance by any and all contractors regarding PRCS entry requirements.

Prior to commencing work in PRCSs, the contractor will be informed of the elements and hazards, which have been identified and warrant the PRCS requirements. Operations will be cooperatively coordinated and performed in such a manner as to allow safe conditions for all personnel working in or near the PRCSs involved.

The contractor will:

1) be provided information regarding the confined space hazards.
2) be informed of our PRCS entry program, operations and procedures.
3) provide a copy of their PRCS Entry Program for our review.
4) communicate any problems or hazards confronted or created by the contractor prior to PRCS entry, during their operations within PRCSs, or in a debriefing session conducted prior to their exit from our property.

PRCS EMERGENCIES

Employees are not allowed to enter PRCS sewer systems during emergency situations. This Permit-Required Confined Space (PRCS) Entry Program establishes the procedures and clearly stipulates the conditions, which must be met prior to and during PRCS sewer system operations.

Adherence to and compliance with the requirements of this program eliminates the necessity for planned rescue operations and equipment. However, the Clark County Fire Department (CCFD) has been notified of the occasional requirement for Terra Contracting's Wet Crew authorized entrant/employees assignment to work in PRCS sewer systems. We have provided the CCFD with information on the location of manhole entrances and have invited their personnel to plan and practice for the remote possibility and/or necessity of a sewer system rescue. We have also provided them a copy of this program.

Rescue personnel or services must be identified and in place prior to entry into permit required confined spaces, if applicable.

PROGRAM REVIEW

Superintendents, Foremen, Human Resources, Senior Management and the Safety and Risk Management team will review this program periodically and when there is reason to believe that the measures taken under the program require revision. Problems such as a documented, unauthorized entry of a PRCS, detection of a PRCS hazard not covered or prohibited by the program, the occurrence of an injury or near miss during PRCS entry or operations, a change in the use or configuration of a PRCS and employee complaints regarding program efficiency may warrant immediate program review and, if deemed appropriate, remedial action.

Canceled PRCS entry forms will be retained for a period of at least one year and used to facilitate program review. Deficiencies found to exist during the review process will be addressed before subsequent entries are authorized.

Addendum B: Respiratory Protection Program

This written Respiratory Protection Program for Terra Contracting, Inc. has been established in accordance with the respiratory protection requirements of OSHA standard 29 CFR 1910.134.

OSHA requires implementation of feasible engineering controls and/or work practice controls as the primary means of maintaining exposures within permissible limits. This Respiratory Protection procedure provides standards for the selection based on the hazards to which the employee is exposed, proper use and limitations, cleaning and disinfecting, storage, inspection, appropriate surveillance of work area conditions, regular inspection, and evaluation. These elements will be used to protect the life and health of employees when working in oxygen deficient or contaminated atmospheres.

This program covers all Terra Contracting, Inc. employees using respiratory protection, including but not limited to; face-pieces such as used for concrete cutting or welding operations; air-purifying cartridge respirators, such as used for petroleum vapors – organic vapors; and supplied-air respirators (self-contained breathing apparatus-SCBA) such as may be used for immediately dangerous to life and health environments (IDLH).

In the Respiratory Protection program, hazard assessment and selection of proper respiratory PPE is conducted in the same manner as for other types of PPE. In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination.
This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used. References: OSHA Standards Respiratory Protection (29 CFR 1910.134)

Responsibilities
The Program Administrator: Terra Contracting Safety Manager

These people are responsible for:

- Issuing and administering this program and making sure that the program satisfies the requirements of applicable federal, state or local respiratory protect requirements
- Providing initial and periodic training to employees on respiratory protection, including the selection, use, cleaning, inspecting and storage of respirators
- Maintaining the training records of all employees included in the training sessions
- Conducting hazard assessments where respiratory hazards may be present
- Assisting the respiratory protection program to ensure its continued effectiveness
- Coordinating annual medical examinations as necessary and maintaining associated records
- Purchasing respiratory protection equipment (via Company Purchasing Specialist)
- Assuring that all respirators purchased are NIOSH-certified

Superintendent/Foreman, Whose Employees Are Required To Wear Respiratory Protection

These people are responsible for:

- Knowing the hazards in their areas that require respiratory protection
- Knowing the types of respirators that need to be used
- Enforcing the wearing of respirators when needed
- Making sure employees are knowledgeable about the respiratory requirements for the areas in which they work
- Providing training on hazardous chemicals and gases to employees who are new to the jobsite or demonstrate a lack of knowledge.
- Reporting unknown or new exposure situations or deficiencies of respiratory equipment to the Safety Manager.

Employees Who Are Required To Wear Respiratory Protection

These people are responsible for:

- Wearing appropriate respiratory protection
- Properly maintaining their respiratory protection equipment and keeping it clean and in an operable condition
- Reporting any problems associated with the use of respirators and new conditions that may require investigation
- Conducting self fit tests of their respirators each time a respirator is worn
- Know the change out schedule for the particular filter being used with their respirator

OSHA requires that voluntary use of respirators, when not required by the company, must be controlled as strictly as under required circumstances. To prevent violations of the Respiratory Protection Standard, employees of Terra Contracting, Inc. are not allowed voluntary use of their own or company supplied respirators of any type including filtering (non-sealing) face pieces (dust masks).

It is the policy of Terra Contracting, Inc. that all respirators, training, and medical surveillance will be provided to the employee at no cost.

Basic Respiratory Protection Safety Procedures

- Only authorized and trained employees may use respirators. Those employees may use only the respirator that they have been trained on and properly fitted to use.

- Only physically qualified employees may be trained and authorized to use respirators. A pre-authorization and annual certification by a qualified physician will be required and maintained. Any changes in an employee's health or physical characteristics will be reported to Terra Contracting, Inc. management and will be evaluated by a qualified physician.

- Only the proper prescribed respirator may be used for the job or work environment. Air cleansing respirators may be worn in work environments when oxygen levels are between 19.5 percent to 23.5 percent and when the appropriate air cleansing canister, as determined by the Manufacturer and approved by NIOSH & OSHA, for the known hazardous substance is used. SCBAs will be worn in oxygen deficient and oxygen rich environments (below 19.5 percent or above 23.5 percent oxygen).

- Employees working in environments where a sudden release of a hazardous substance is likely to occur will wear an appropriate respirator for that hazardous substance.

- Only SCBAs will be used in oxygen deficient environments, in environments with an unknown hazardous substance or unknown quantity of a known hazardous substance, or in any environment that is determined "Immediately Dangerous to Life or Health" (IDLH).

- Employees with individual respirators will be responsible for the sanitation, proper storage and security of their respirator. Respirators damaged by normal wear will be repaired or replaced by the company when returned. Equipment damaged and/or lost due to employee negligence will be replaced at the cost of employee.

- All respirators will be located in a clean, convenient and sanitary location. Proper storage and cleaning by employee.

- In the event that employees must enter a confined space, work in an environment with hazardous substances dangerous to life or health (a SCBA is required in this environment), and/or conduct a HAZMAT entry, a "buddy system" will be used. A “Safety Watchman”, Health & Environmental Manual Respiratory Protection Policy with constant voice, visual or signal line communication must be used. Employees will follow the established Emergency Response Program and/or Confined Space Entry Program when applicable.

- Management will establish and maintain surveillance of jobs and work place conditions and degree of employee exposure or stress to maintain the proper procedures and to provide the necessary respiratory protective equipment.

Respirator User Policies

Adherence to the following guidelines will help ensure the proper and safe use of respiratory

equipment:

- Wear only the respirator you have been instructed to use. For example, do not wear a self-containing breathing apparatus if you have been assigned and fitted for a half-mask respirator.

- Wear the correct respirator for the particular hazard. For example, some situations, such as chemical spills or other emergencies, may require a higher level of protection than your respirator can handle. Also, the proper cartridge must be matched to the hazard (a cartridge designed for dusts and mists will not provide protection for chemical vapors).

- Check the respirator for a good fit before each use. Positive and negative fit checks should be conducted.

- Check the respirator for deterioration before and after use. Do not use a defective respirator.

- Recognize indications that cartridges and canisters are at their end of service. If in doubt, change the cartridges or canisters before using the respirator.

- Practice moving and working while wearing the respirator so that you can get used to it.

- Clean the respirator after each use, thoroughly dry it and place the cleaned respirator in a sealable plastic bag.

- Store respirators carefully in a protected location away from excessive heat, light, and chemicals.

Medical Evaluation

Using a respirator may place a physiological burden on employees, which can vary with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Terra Contracting, Inc. will provide a medical evaluation at no cost to the employee to determine the employee's ability to use a respirator. This evaluation will be conducted before the employee is fit tested or required to use a respirator in the workplace.

Medical evaluation procedures

A medical evaluation can be done by giving an employee a medical examination or by allowing the employee to fill out a Respiratory Medical Evaluation Questionnaire. A Primary Licensed Health Care Provider must then evaluate the questionnaire. The medical evaluation will take place during normal working hours and will be kept confidential.

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content. The company shall provide the employee with an opportunity to discuss the questionnaire and examination results with the Primary Licensed Health Care Provider.

The written recommendation shall provide only the following information:

- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator
- The need, if any, for follow-up medical evaluations
- A statement that the Physician has provided the employee with a copy of the Physician's written recommendation
- If the respirator is a negative pressure respirator and the Physician finds a medical condition that may place the employee's health at increased risk if the respirator is used, the Company shall provide an APR if the Physician's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds

that the employee is medically able to use a negative pressure respirator, then the Company is no longer required to provide a APR.

Follow-up medical examination

The company shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions in Part B of the questionnaire or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the Physician deems necessary to make a final determination.

Respirator Fit Testing

Before an employee is required to use any respirator with a negative or positive pressure tightfitting face piece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. Terra Contracting, Inc. will ensure that an employee using a tight-fitting face piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter.
The company has established a record of the qualitative and quantitative fit tests administered to employees including:

- The name or identification of the employee tested
- Type of fit test performed
- Specific make, model, style, and size of respirator tested
- Date of test
- The pass/fail results for Qualitative Fit Tests or the fit factor and strip chart recording or other recording of the test results for Quantitative Fit Tests

Additional fit tests will be conducted whenever the employee, the company, the physician, the Superintendent/Foreman, or the program administrators make visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight. If after passing a fit test, the employee notifies any of the people listed above that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face piece and to be re-tested.

Types of Fit Tests
The fit test shall be administered using an OSHA-accepted Qualitative Fit Test (QLFT) or Quantitative Fit Test (QNFT) protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A of OSHA Standard 1910.134.

- QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
- If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half face pieces, or equal to or greater than 500 for tightfitting full face pieces, the QNFT has been passed with that respirator. (NOTE: If a particular OSHA standard requires the use of a full facepiece air purifying respirator capable of providing protection in concentrations up to 50 times the PEL, the respirator must be Quantitatively Fit Tested).
- Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.
- Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual face piece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator face piece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air purifying respirator face piece.

- Quantitative fit testing of these respirators shall be accomplished by modifying the face piece to allow sampling inside the face piece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate face piece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the face piece.
- Any modifications to the respirator face piece for fit testing shall be completely removed, and the face piece restored to NIOSH approved configuration, before that face piece can be used in the workplace.
- Fit test records shall be retained for respirator users until the next fit test is administered.
- Written materials required to be retained shall be made available upon request to affected employees.

Respirator Operation and Use

Respirator users will be required to follow the respiratory protection safety procedures established in this program. The Operations and Use Manuals supplied by the manufacturer for each type of respirator will be maintained by the Program Administrators and be made available to all qualified users.

Each time an employee dons a respirator; a positive and a negative fit check should be performed to ensure a proper fit. These can be completed as follows:

Positive pressure check
Close the exhalation valve(s) and exhale gently into the face piece. This should build a slight positive pressure inside the face piece without any air leaking out at the seal.

Negative pressure check
Close the inhalation valve(s) and inhale gently. The face piece should collapse against the employee's face. Hold breath for 10 seconds. The face piece should stay collapsed with no air leaks.

The Site Superintendent/Foreman will conduct surveillance of the work area conditions and the degree of employee exposure or stress. When there is a change in work area conditions or the degree of employee exposure or stress that may affect respirator effectiveness, Terra Contracting, Inc. will reevaluate the continued effectiveness of the respirator.

For continued protection of respirator users, the following general use rules apply:
- Users shall not remove respirators while in a hazardous environment
- Respirators are to be stored in sealed containers out of harmful atmospheres
- Store respirators away from heat and moisture
- Store respirators such that the sealing area does not become distorted or warped
- Store respirator such that the face piece is protected

Facial Hair Policy

Testing and research has shown that excessive facial hair prevents a good seal from forming between the skin and respirator sealing surface. It is the policy of Terra Contracting, Inc. that employees required to use a respirator must be clean-shaven and have no hair in the facial areas where a specific respirator must seal. A properly trimmed and groomed mustache is acceptable. However, beards, extended sideburns and goatees are unacceptable. This policy does not apply to employees who use a helmet or hood type respirator where a tight face seal is not required. In addition, any other condition that interferes with the face-to-face piece seal or valve function will not be allowed. If an employee wears corrective glasses or goggles or other personal protective equipment, the Company shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.

Continuing Effectiveness of Respirators

The company shall ensure that employees leave an area requiring respirator use under the following situations:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use
- If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece
- To replace the respirator or the filter, cartridge, or canister elements. If an employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, Terra Contracting will replace or repair the respirator before allowing the employee to return to the work area.

Cleaning and Disinfecting

Terra Contracting, Inc. will provide each respirator user with a respirator that is clean, sanitary, and in good working order. Cleaning and Storage of respirators is the responsibility of each employee assigned a respirator. Respirators should be cleaned and disinfected using the following procedures:

1. Before leaving the work area, each user must "wipe-down" the respirator with a wet cloth to remove any contaminates which may have settled on the equipment.

2. Respirator facepieces should be washed with detergent in warm water temperature not to exceed 1200 F and scrub using a soft brush. If possible, detergents containing a bactericide should be used. Organic solvents should not be used, as they deteriorate the rubber facepiece. If bactericide detergent is not available, the detergent wash should be followed with a disinfecting rinse. Two types of disinfectant may be made from readily available household solutions. A hypochlorite solution (50 ppm) can be made by adding 5 tablespoons (50ml) of chlorine bleach to 2.5 gallons of water. An aqueous solution of iodine (50 ppm) can be made by adding 2 /12 teaspoons (6.25 ml) tincture of iodine to 2.5 gallons of water. A two minute immersion of the respirator into either solution would be sufficient for disinfecting. It should be noted that a Zephiran Chloride solution can be used along with gauze pads as a convenient spot disinfectant.

3. Respiratory equipment shall be thoroughly rinsed in warm clean water (1200 F maximum) to remove all traces of detergent, cleaner, sanitizer, and disinfectant. It is very important that all proper rinsing takes place in order to prevent dermatitis.
4. Respiratory equipment shall be allowed to air dry on a clean surface or hung from a horizontal wire.

Respirators shall be cleaned and disinfected when:

- Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition
- Respirators used in fit testing and training shall be cleaned and disinfected after each use.

Respirator Inspection

Respirators are to be inspected before and after each use. Should any defects be noted, the respirator will be taken to the Program Administrator. Damaged Respirators will be either repaired or replaced.

The primary defects to look for in the inspection of respirators and corrective actions to take are itemized below:

Rubber facepiece - Check for:

- Excessive dirt (clean all dirt from facepiece)
- Cracks, tears, or holes (obtain new facepiece)
- Distortion (allow facepiece to “sit” free from any constraints and see if distortion disappears; if not, obtain a new facepiece), and
- Cracked, scratched, or loose fitting lenses (contact respirator manufacturer to see if replacement is possible; otherwise obtain a new facepiece)

Head straps - Check for:

- Breaks or tears (replace head straps)
- Loss of elasticity (replace head straps)
- Broken or malfunctioning buckles or attachments (obtain new buckles), and
- Allow the facepiece to slip (replace head strap)

Inhalation valve, exhalation valve - Check for:

- Detergent residue, dust particles, or dirt on valve or valve seat (clean residue with soap and water
- Cracks, tears, or distortion in the valve material or valve seat (contact manufacturer for instructions), and
- Missing or defective valve cover (obtain valve cover from manufacturer)
- Make sure the gaskets are properly seated

Filter element(s) - Check for:

- Proper filter for the hazard
- Approval designation
- Missing or worn gaskets (contact manufacturer for replacement)
- Worn threads - both filter threads and facepiece threads (replace filter or facepiece, whichever is applicable)
- Cracks or dents in filter should be replaced by manufacturer

Monitoring

The Program Administrators and Superintendent/Foreman will monitor respirator usage at Terra Contracting work sites. These people will conduct random inspections to ensure that respirators are being used; that the respirator in use is appropriate for the work conditions; and that the respirators are being worn properly and are in good working condition.

Program Evaluation

This respirator program shall be evaluated at least annually to determine the overall effectiveness of the program in assuring the proper selection and use of respiratory protective equipment. Special attention will be given to proper record keeping, which includes training, fit testing, and medical records.

Record Keeping

The Human Resources Department will retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist Terra Contracting, Inc. in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA. Records pertaining to the respiratory written program will be retained at the corporate office and made available in accordance with 29 CFR 1910.1020

Addendum C: General Waste Management Program

Purpose & Scope

This written program documents the steps Terra Contracting, Inc. has taken to minimize General Refuse and Construction & Demolition (C&D) debris resulting from various construction activities consistent with Civil Industrial operations present at our construction sites.

Responsibilities

The Program Administrator:

- Issuing and administering this program and making sure that it satisfies all applicable federal, state and local requirements.
- Identifying waste minimization opportunities and prescribing appropriate solutions.
- Providing training for all employees who will handle waste materials.

Project Managers, Superintendents and Foreman:

- Estimation of the waste that will be generated prior to work being performed so that the need for containers and waste removal, if necessary, can be determined.
- Coordinate with the project site or owner to ensure proper disposal of wastes or construction and demolition debris prior to work commencing.
- Assign or ensure a Terra employee is given the responsibility to handle the task of proper disposal, reuse or recycling of wastes or C&D debris.
- Inform employees as to waste management procedures specific to each job or project.
- Ensuring safe operations are maintained on the jobsite to prevent injuries to the eyes, face, head, hands and feet during handling of wastes.
- Enforcing the use of this program in the areas in which it's required or necessary

Employees:

- Using PPE when required
- Properly store and maintain all general & C&D debris

Program Activities

C&D versus General Trash or Refuse

(C&D) debris is nonhazardous, uncontaminated material resulting from construction, remodeling, repair, or demolition of utilities, structures, and roads. These materials include the following:

- Bricks, concrete, and other masonry materials
- Soil
- Rock
- Wood, including nonhazardous painted, treated, and coated wood and wood products
- Plaster
- Drywall
- Plumbing fixtures
- Non-asbestos insulation
- Roofing shingles and other roof coverings
- Reclaimed asphalt pavement
- Glass
- Plastics that do not conceal waste
- Electrical wiring and components that do not contain hazardous substances
- Piping
- Metal materials incidental to any of the materials above

General trash includes domestic, office and warehouse wastes, paper and other nonhazardous refuse. Waste should be free of liquids and should not include any recyclable waste, used oil, hazardous wastes or universal wastes. Universal waste may include batteries, electronic devices, rubber, or mercury.

Accumulation and Storage

- Use appropriate PPE, such as rubber or neoprene gloves, boots and safety glasses, and a facemask or goggles.
- When handling trash, use caution to avoid splinters, cuts, or other injuries.
- Trash can be accumulated in bags, drums, baskets, gondolas, or dumpsters. Outdoor receptacles should be covered to prevent stormwater pollution.
- Proper segregation is required for waste materials that are deemed special waste or for recycling.

Waste Management Locations

- Dumpsters should be kept within plain sight, if possible, to facilitate oversight of contractors or others who use it. C&D debris can be transported to a permitted facility by any hauler. The hauler is not required to have a special waste haulers permit.
- If you have lead-based paint that was removed from non-household waste (for example, paint that was removed from the substrate), the paint waste must be tested by a laboratory using the toxicity characteristic leachate procedure (TCLP) before landfilling. Currently this waste must be managed as a special waste.
- Well labeled trash barrels are to be located throughout the jobsite, covered, and labeled; “General Trash”.

Recycling and Disposal

All general refuse other than office waste is currently thrown in the dumpster and hauled to the landfill. Employees will be made aware of the proper disposal of waste at their jobsites. However, every effort should be made to recycle or reuse certain types of general refuse when possible.

Voluntary recycling requirements for Terra Contracting project recyclables include:

- newspaper
- corrugated cardboard
- white and colored office paper
- glass bottles and jars
- metal cans
- Asphalt and Concrete as appropriate
- Salvageable materials will be diverted from disposal where feasible.
- Wood cutting will occur in centralized locations to maximize reuse and make collection easier.

Hazardous waste will be managed by a licensed hazardous waste vendor. (see HAZWOPER Program for more details)

Addendum D: Hazard Communication (HAZCOM)

A. OBJECTIVES

1. To protect the health of our employees.

2. To provide the employees with the necessary information concerning health and physical hazards of the materials used in their operations.

3. To comply with Title 29 Part 1910.1200, Sub-part Z of the Code of Federal Regulation (CFR): OSHA Hazard Communication.

4. To include flexibility in the compliance program so that changes can be made to comply with possible state and local Right-To-Know Laws.

B. SCOPE: This program will provide information to the employees of **Terra Contracting Inc.** on the chemical products to which they are exposed. It will be accomplished by the following:

1. Listing of all chemical products on the property.

2. Appropriate labeling on containers of all chemical materials used.

3. Making available Safety Data Sheets (SDS) for all chemical products on the property.

4. Employee training to recognize and interpret labels, warnings, color-coding, signs, etc. that are affixed to containers so that they can properly protect themselves against potential hazards.

5. Employee training to understand the elements of the SDS and to recognize possible risks to health and physical harm.

6. If any contractor's work with a hazardous material could affect the safety and health of other contractors' employees, **Terra Contracting Inc.** will coordinate the work with the other contractors to ensure the safety and health of all employees. Contractors will be responsible for the safe storage, use, and disposal of all hazardous material brought onsite.

7. This written Program will be made available, upon request, to employees, their designated representatives(s), and to all local, State and Federal officials who have proper authority.

C. LISTING OF CHEMICAL PRODUCTS

1. Because we are not a chemical manufacturer, importer or distributor, **Terra Contracting Inc.** is not required to assess the hazards or evaluate chemicals. We will maintain a list of all the chemical products used on site. We will always evaluate to the best of our ability the potential health exposure of a particular chemical product before we decide to use it.

2. We will provide a system under which, purchasing will obtain SDS from all suppliers of chemical products. This system would include the following:
    i. Sending form letters to suppliers requesting information/SDS.
    ii. A flagging system to ensure that SDS are received and kept current.
    iii. Maintenance of SDS files that is available to employees, their representatives, local jurisdictional authorities and health or medical officers as required by the regulations. SDS for all hazardous materials will be submitted to **Terra Contracting Inc.** prior to arrival on site.

iv. A purchase requisition noting that the proper labels are either to be attached to all containers received, or to be sent with the order, and that the supplier certifies that all SDS and labels comply with the standard.

3. A master list of hazardous chemicals will be maintained for reference. This list will be expanded as new chemicals are ordered and/or received. All new chemical products will be appropriately labeled, and a SDS obtained before receiving material at **Terra Contracting Inc.**.

D. LABELS

4. Material received at **Terra Contracting Inc.** will be properly labeled. If labels are not provided, we will contact the supplier to get the specific labels. Information contained on labels must not conflict with federal, state or local laws and/or regulations in labeling requirements. These labels will provide the following information:
   i. Identity of the chemical products or substance in the container;
   ii. Hazard warnings; and
   iii. Name and address of the manufacturer or other responsible party.

5. The labels must not be removed and shall be replaced if illegible.

6. All containers of chemical products, including all containers, solvent cans and dispensers must be labeled. For smaller containers (less than one gallon or 3.7 liters), labels must be consistent with the standards that are specified above. Only those chemicals that can be classified as "immediate use", which means that the hazardous chemicals under control of and used only by the person who transfers it from the labeled container and only within the work shift in which it is transferred, are exempt from the labeling procedures as described above.

7. In storage areas where similar chemical products are stored, we will post signs or placards to identify the material and transmit the required information in lieu of individual container labels.

8. If any materials are to be transferred from a storage tank or container through a pipeline, labels with the required information will be affixed to the line at the discharge point (valve). Although the law does not require this, it makes sense to provide this.

9. In those cases where a chemical product, other than that specified on the container label, is placed in the container, we must re-label the container to accurately reflect the hazards of the chemical product that has been substituted.

E. TRAINING: All employees in the regulated areas will receive training in the handling of chemical products. There will be an annual review of the training program, and a list of each employee's training schedule will be maintained. The training program will provide instruction in the following areas:

3. The requirements of the Hazard Communications Program;

4. The operations of the work area where chemical products are present, including both routine and non-routine jobs;

5. The location and availability of the SDS;

6. Interpretation of SDS data and of the labeling system;

7. Methods and observation that the employee may use to detect the presence or accidental release or spill of chemical products in the work area;

8. Measures that employees can take to protect themselves from these hazards (i.e., work practices, personal protective equipment, and emergency procedures)

9. When a new employee is assigned or transferred to a work area in which chemical products are used, or when performing non-routine tasks, employee orientation will include all of the above training elements, as well as all specific safety and health training required. Contractors, vendors and service personnel who have employees assigned to work on our premises in areas where potential exposure to chemical products exist must be informed of chemical hazards, availability of SDS and appropriate protective measures.

F. HEALTH, SAFETY AND EMERGENCY PROCEDURES

1. To ensure that sufficient and required information is available and accessible during emergencies, or in the event of a spill in the work area, or beyond the property line of **Terra Contracting Inc.**, the following information will be available to local health and jurisdictional authorities if requested or required:
    i. SDS;
    ii. The location of stored chemical products if the amount is equal to 30 gallons or 300 pounds or more;
    iii. Special procedures for spill control and/or clean-up for specific chemical substances;
    iv. The health hazards, including symptoms of exposure and/or any recognizable medical conditions; and
    v. Environmental hazards, to air and/or water, which may result from the release of specific quantities of chemical substance(s).

Addendum E: Asbestos Awareness Program

OBJECTIVE:

Establishing proper safety procedures where potential hazardous exposure to asbestos & asbestos containing materials may exist.

SAFETY PRECAUTIONS:

As Terra Contracting Inc. scope of work does not include asbestos abatement or removal, before any work is to be performed on asbestos-containing material, or there is a reason to believe a material contains asbestos, the employee shall notify their supervisor. Employees are not to disturb material that contains asbestos.

Management shall ensure compliance and safety of employees before work is to commence.

Work cannot continue until testing/treatment has been completed to confirm the safety of the jobsite. This includes use of outside asbestos abatement remediation.

Examples of potential asbestos containing material are:

1. Pipeline wrap
2. Asbestos-cement pipe and sheet
3. Automotive brake and clutch linings

Training Requirements

Training shall be performed for company employees who are not involved in asbestos abatement or removal operations but have the potential to be exposed to asbestos in the performance of their job. This training shall be at initial hire and included in a yearly refresher.

This training shall incorporate the following elements:

1. Origin and nature of asbestos.

2. Medical aspects concerning asbestos
    a. Risk of exposure due to inhalation and ingestion of asbestos.
    b. Disabling respiratory diseases, including cancer of lungs, stomach, and colon that are associated with asbestos exposure.

3. How to identify suspected asbestos-containing materials.

Addendum F: Bloodborne Pathogens

SELECTED DEFINITIONS

1. BLOOD - means human blood, human blood components, and products made from human blood.

2. BLOODBORNE PATHOGENS - means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

3. CONTAMINATED - means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

4. CONTAMINATED LAUNDRY - is laundry, which has been soiled with blood or other potentially infectious materials or may contain sharps.

5. CONTAMINATED SHARPS - means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

6. DECONTAMINATION - means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.

7. ENGINEERING CONTROLS - means controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

8. EXPOSURE INCIDENT - means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

9. HAND WASHING FACILITIES - means a facility providing an adequate supply of running potable water, soap and single-use towels or hot air drying machines.

10. LICENSED HEALTHCARE PROFESSIONAL - is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph 1910.1030(f) Hepatitis B vaccination and Post-exposure Evaluation and Follow-up.

11. HBV - means hepatitis B virus.
12. HIV - means human immunodeficiency virus

13. OCCUPATIONAL EXPOSURE - means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

14. OTHER POTENTIALLY INFECTIOUS MATERIALS
    i. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid (muscle membrane fluid), pleural fluid, pericardial and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
    ii. Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
    iii. HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

15. PARENTERAL - means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

16. PERSONAL PROTECTIVE EQUIPMENT - is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

17. REGULATED WASTE - means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

18. SOURCE INDIVIDUAL - means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

19. STERILIZE - means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

20. UNIVERSAL PRECAUTIONS - is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

A. COMPLIANCE METHODS

1. *Universal precautions will be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.*

2. Employee exposure at this facility is limited to two possible situations:
   i. In the infrequent situation where first aid is administered; and
   ii. General housekeeping within the facility.
   iii. This does not constitute occupational exposure risk.

3. As the employees' possibility of exposure is limited to these situations; personal protective equipment shall be utilized at these times.

4. Hand washing facilities are also available to the employees who incur exposure to blood or other potentially infectious materials. These facilities are readily accessible after incurring exposure. At this facility, hand-washing facilities are located in the men's and women's restrooms.

5. When provision for hand washing is not feasible, antiseptic towelettes and/or hand cleaners are made available to employees. Employees will be required to wash their hands with soap and water immediately or as soon as feasible following the use of antiseptic towelettes.

6. After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

7. Exposure Control Plan shall be made readily available to all employees.

8. Employees with occupational exposure (above and beyond possibility of rendering first aid/general housekeeping within facility) shall be offered the Hepatitis B vaccine at no cost to employee. Hepatitis B vaccine shall be offered in the event of exposure.

B. CONTAMINATED EQUIPMENT

1. Equipment, which has become contaminated with blood or other potentially infectious materials, shall be examined and decontaminated as necessary unless the decontamination of the equipment is not feasible.

2. When such equipment or portions of such equipment cannot feasibly be decontaminated, a readily observable label shall be attached to the equipment until the equipment can be properly disposed of.

C. PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. All personal protective equipment used at this facility is provided without cost to employees. Personal protective equipment is and will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time, which the protective equipment will be used.

2. Employees of **Terra Contracting Inc.** have limited exposure incidents. First-aid designees will have rubber gloves, safety glasses and mouth protectors available to them. These will be located within the first aid kits. The janitor/cleaning team will wear rubber gloves while working in any area that is contaminated. These will be provided and kept in the storeroom. It is our responsibility to ensure that the employee uses PPE. If an employee is found to not be using PPE, he/she will be requested to do so.

3. All personal protective equipment will be cleaned or disposed of by the company at no cost to employees. All repairs and replacements will be made by the company at no cost to employees.

4. Gloves and safety glasses shall be worn during the administering of first aid or where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, or mucous membranes.

5. Disposable gloves used at this facility are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibits other signs of deterioration or when their ability to function as a barrier is compromised.

D. HOUSEKEEPING

1. This facility will be cleaned as regularly scheduled. If contamination occurs, decontamination will be accomplished using a commercially prepared disinfectant or a **solution of one part bleach to nine parts water** on all contaminated surfaces. All contaminated surfaces will be decontaminated immediately or as soon as feasible after any spill of blood or other potentially infectious materials. All trash bins, pails, cans and similar receptacles shall be inspected and decontaminated as needed by the janitor. All equipment contaminated in the field shall be decontaminated as soon as possible.

2. The regularly scheduled cleaning of this facility is as follows:

DAILY: All bathroom areas cleaned and trash emptied;
All countertops and first aid area;
All other areas where it can be reasonably assumed that contamination may have occurred.

MONTHLY: The First Aid kit in the facility;
The First Aid kits in the company vehicles.

3. AS REQUIRED**:** All Blood or other potentially infectious bodily fluid spills will be cleaned up, as quickly as feasible, by the employee whose bodily fluid is spilled unless this is infeasible due to specific circumstances. The purpose of this practice is to limit the possibility of an exposure incident. Should the employee whose bodily fluid is spilled be unable to fulfill this obligation, the spill is to be cleaned up and disinfected by **AN EMPLOYEE DESIGNATED BY THE COMPANY AND TRAINED IN PROPER CLEAN-UP PROCEDURES**.

E. REGULATED WASTE DISPOSAL: Any regulated waste, which may arise, shall be placed in closeable, leak proof containers that are properly labeled or color-coded in accordance with the standard. Such containers are located in the supply room.

F. LAUNDRY PROCEDURES

1. This section applies to the contamination of clothing by an incident in which the blood or other potentially infectious bodily fluids of a source individual contaminates the clothing of another. This section does not apply to the contamination of the source individual's clothing (the source individual will be responsible to launder their own clothing).
2. Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible. Such laundry will be placed in appropriately marked bags at the location where it was used. Such laundry will not be sorted or rinsed in the area of use.

3. All employees who handle contaminated laundry will utilize personal protective equipment to prevent contact with blood or potentially infectious materials.

4. **ALL CONTAMINATED CLOTHING SHALL BE DISPOSED OF AND NOT LAUNDERED.**

G. POST-EXPOSURE EVALUATION AND FOLLOW-UP

1. When the employee incurs an exposure incident, it is required to be reported to the manager. This shall be noted in incident report

2. All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard. The company doctor shall administer this evaluation.

3. The post exposure follow-up will include the following:
   i. Documentation of the route of exposure and the circumstances related to the incident;
   ii. If possible, the identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV/HBV infection;
   iii. Results of testing of the source individual will be made available to the exposed employee, if possible;
   iv. The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time that testing will be conducted, then the appropriate action can be taken and the blood sample discarded;
   v. The employee will be offered post exposure prophylaxis at no cost to employee in accordance with the current recommendation of the U.S. Public Health Service;
   vi. Employee shall be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences.

4. **HR/Safety Manager** has been designated to assure that this policy is effectively carried out and to maintain related records.

H. INTERACTION WITH HEALTH CARE PROFESSIONALS

1. A written opinion shall be obtained from the health care professional Written opinions will be obtained in the following instances:
    i. Whenever the employee is sent to a health care professional following an exposure incident.

2. Health care professionals shall be instructed to limit their opinions to:
    i. Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident;
    ii. That the employee has been informed of the results of the evaluation; and
    iii. That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. The written opinion to the employer is not to reference any personal medical information.

I. LABELS AND SIGNS: Communication of Hazards - To communicate hazards to employees, the following labeling system shall be used:

1. Warning labels shall appear as shown below, and will be orange-red or fluorescent orange with the lettering and symbols in a contrasting color.

2. These labels shall be placed on any containers of potentially infectious waste as necessary.

3. Red bags may be substituted for labels.

J. TRAINING: Training will include an explanation of the following:

1. The OSHA standard for Bloodborne Pathogens;

2. Epidemiology and symptomatology of bloodborne diseases;

3. Modes of transmission of bloodborne pathogens;

4. This Exposure control Plan, e.g. points of the plan, lines of responsibility, how the plan will be implemented, etc.;

5. Procedures, which might cause exposure to blood or other potentially infectious materials at this facility;

6. Control methods, which will be used at the facility to control exposure to blood or other potentially infectious materials;

7. Information on the type, use, location, removal, handling, decontamination, and disposal of PPE;

8. An explanation of the basis for selection of PPE;

9. Who to contact and the appropriate action to take if an emergency involving exposure to blood or other potentially infectious materials occurs;

10. The procedure to follow if an exposure incident occurs;

11. Company employees who have the potential to be exposed to bodily fluids must be trained on the subject of bloodborne pathogens upon initial hire and annually thereafter.

12. All employees will receive bloodborne pathogen training as part of safety training “tool box talk” with topics rotating on weekly basis.

K. RECORDKEEPING: MEDICAL RECORDS AND TRAINING RECORDS

1. The company establishes and maintains accurate records for each employee with occupational exposure, in accordance with 29 CFR 1910.20 and paragraphs (h)(1) of the Bloodborne Standard.

2. Training records are maintained in accordance with paragraph N be retained for 3 years from the date on which the training occurred.

3. Both training and medical records required by the standard are made available upon request to employees or their representatives.

4. All medical and training records required by the OSHA standard are maintained by HR/Safety Department.

MEDICAL RECORDS

1. The company establishes and maintains an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.20.

2. This record includes:
   i. The name and social security number of the employee;
   ii. A copy of all results of examinations, medical testing, and follow-up procedures.
   iii. The company's copy of the healthcare professional's written opinion.
   iv. A copy of the information provided to the health-care professional.

3. CONFIDENTIALITY - The company will ensure that employee medical records are:
   i. Kept confidential; and
   ii. Are not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

4. The company must maintain the records required by paragraph (h) of the standard for at least the duration of employment **plus 30 years** in accordance with 29 CFR 1910.20.

TRAINING RECORDS

5. Training records include the following information:
   i. The dates of the training sessions;
   ii. The contents or a summary of the training sessions;
   iii. The names and qualifications of persons conducting the training; and
   iv. The names and job titles of all persons attending the training sessions.

6. Training records are maintained for three years from the date on which the training occurred.

AVAILABILITY

7. The company ensures that all records required to be maintained by the standard will be made available upon

request to OSHA for examination and copying.

8. Employee training records required by the standard must be provided upon request for examination and copies given to employees, to employee representatives, and to OSHA.

9. Employee medical records required by the standard must be provided upon request for examination and copies given to the subject employee, to anyone having the written consent of the employee, and to OSHA.

TRANSFER OF RECORDS

10. The company will comply with the requirements involving transfer of records set forth in 29 CFR 1910.20(h).

11. If the company ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the company will notify OSHA, at least three months prior to their disposal and transmit them to OSHA, if required by OSHA to do so within that three month period.

Addendum G: Electrical Safety

A. PURPOSE: Electricity is a serious work place hazard, capable of causing both employee injury (shocks, electrocution, fires and explosions) as well as serious property damage. By providing all employees personnel with proper training in safe electrical work practices, **Terra Contracting Inc.** hopes to reduce the risk of such incidents.

B. RESPONSIBILITIES

1. **Terra Contracting** management is responsible for providing employee safety training, conducting electrical safety inspections, correcting all electrical safety hazards, and ensuring that all new electrical equipment and components comply with codes and regulations.

2. Employees are responsible for the immediate reporting of electrical safety hazards, for not working on electrical equipment without proper training and authorization, and for inspecting equipment prior to using it.

C. DEFINITIONS

1. QUALIFIED WORKER**:** An employee who is trained and authorized to perform work on electrical equipment and components.

2. UNQUALIFIED WORKER**:** An employee who has not been trained or authorized to perform electrical work.

D. HAZARD CONTROL

1. The following control methods will be used to prevent occurrence of electricity-related incidents.

2. ENGINEERING CONTROLS:
   i. All electrical distribution panels, breakers, disconnects, switches and junction boxes must be completely enclosed;
   ii. Water-tight enclosures must be used if any of these components could possibly be exposed to moisture;
   iii. Structural barriers, and/or insulated shields must be used to prevent accidental damage to electrical components when necessary;
   iv. Conduits must be supported for their entire length, and any non-electrical attachments to conduits are prohibited;
   v. Non-rigid electrical cords must have strain relief wherever necessary.
   vi. Areas with exposed energized parts shall require proper illumination prior to work commencing.

3. **ADMINISTRATIVE CONTROLS**

   i. Only trained, authorized employees may repair or service electrical equipment.

   ii. Contractors must be licensed and qualified to perform electrical work.

   iii. Physical barriers must be used to prevent unauthorized persons from entering areas where new installation or repair of electrical components or equipment is being performed.

   iv. Only authorized employees may enter electrical distribution rooms.

   v. All electrical control devices must be labeled properly.

   vi. Senior facility management must authorize any work on energized electrical circuits.

4. **WORK PRACTICE CONTROLS**

   i. Employees covered under this policy must wear all appropriate PPE according to section H1 of this policy. Employees are restricted from wearing conductive clothing and adornments while working around energized electrical parts.

   ii. Use only tools that are properly insulated. This includes the use of non-conductive ladders when working around energized electrical equipment.

iii. Lockout/Tagout shall be utilized when performing electrical work. Employees must treat de-energized parts that have not been locked or tagged out as live, energized parts when working on or around equipment.

iv. **Terra Contracting** will remain in compliance with current NEC codes and will provide approved ground-fault circuit interrupters for all 120-volt, single phase, 15 and 20 ampere receptacle outlets which are not a part of the permanent wiring of the building or structure and which are in use by employees.

v. Receptacles on the ends of listed extension cords are not part of the permanent wiring and therefore will be protected by ground-fault circuit interrupters whether or not the listed extension cord is plugged into permanent wiring. No job made extension cords will be accepted.

vi. Listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling.

vii. All electoral equipment found to be damaged or defective is removed from service

E. ELECTRICAL EQUIPMENT INSPECTIONS: Inspect all electrical equipment for hazards that could cause employee injury or death. Consider the following factors when determining the safety of the equipment:

1. Suitability for the intended use.

2. Proper insulation.

3. Heating effects under conditions of use.

4. Arcing effects.

5. Classification by type, size, voltage, current capacity and intended use.

F. PERSONAL PROTECTIVE EQUIPMENT: Terra Contracting Inc. will provide personal protective equipment for use by employees working in areas where they could be exposed to electrical hazards.

1. Employees are required to observe the following procedures for PPE use:
   i. PPE use is mandatory when contact with exposed electrical sources is likely.
   ii. Only use PPE that is designed for the work being performed.
   iii. Inspect and test all PPE prior to use.
   iv. Use a protective outer cover (leather, for example) if the work being performed might damage the PPE's insulation.
   v. Wear non-conductive headgear if there is danger of electrical burns or shock from contact with exposed, energized equipment.
   vi. Wear eye and/or face protection any time there is danger of flying objects, flashes or electrical arcs produced by an electrical explosion.

G. EMPLOYEE TRAINING

1. QUALIFIED EMPLOYEES
   i. Training for those employees qualified to perform electrical work will consist of:
      a. Specific equipment procedures.
      b. The training requirements outlined in OSHA standard 29 CFR 1910.331 to 1910.339

H. UNQUALIFIED EMPLOYEES: Employees that are not qualified or authorized to perform work on electrical equipment and components will be trained in general electrical safety precautions for the purpose of hazard awareness.

1. The following electrical safety rules also apply to unqualified employees:
    i. Do not conduct any electrical repairs.
    ii. Report all electrical hazards to your supervisor.
    iii. Do not operate equipment if you believe there is an electrical hazard.
    iv. Do not allow electrical equipment or components to contact water.
    v. Remember that even low-voltage electricity can be physically harmful.
    vi. Do not use cords or plugs that are missing the 'ground' prong.
    vii. Do not overload electrical receptacles.

Addendum H: Lockout/Tagout Policies & Procedures

A. SCOPE AND PURPOSE

1. The scope of this policy covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees.

2. This policy shall apply to the control of energy servicing and/or maintenance of machines and equipment. Please note that this includes; any time an employee is required to remove or bypass a guard or other safety device, or an employee is required to place any part of his or her body into an area where work is actually being performed upon material being processed or other danger zone exists.

3. The purpose of this policy is to provide procedures that establish requirements for the control (lockout/tag out) of hazardous energy associated with all machinery and equipment at our facility. These procedures shall be used by all employees to protect themselves from the hazards and subsequent injuries that may occur as the result of the unexpected release of a hazardous energy source during servicing and/or maintenance operations. This policy also establishes procedures for affixing appropriate lockout devices or tag out devices, or both, to energy isolating devices.

4. This policy goes on to explain means to otherwise disable machinery and/or equipment to prevent unexpected energization, start-up, or release of stored energy in order to prevent injury to employees.

5. All parts of this policy must be carried out by management and employees to remain in compliance with 29 CFR 1910.147 and 29 CFR 1910.331 thru .335.

B. DEFINITION OF TERMS

1. AUTHORIZED EMPLOYEE: A person who locks or implements a tag out system procedure on machines or equipment to perform servicing or maintenance on that machine or equipment. They must receive certain training as outlined later in this policy.

2. AFFECTED EMPLOYEE: An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tag out, or whose job requires him/her to work in an area in which servicing or maintenance is being performed. They must receive certain training as outlined later in this policy.

3. OTHER EMPLOYEES: Employees whose work operations are or may be in an area where energy control procedures may be utilized. They must receive certain training as outlined later in this policy.

4. ENERGY SOURCE: Any source of electrical, hydraulic, pneumatic, mechanical, gravity, chemical, thermal, radiation or other energy.

5. LOCKOUT DEVICE: A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

6. SERVICING AND/OR MAINTENANCE: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

7. QUALIFIED PERSONS: One familiar with the construction and operation of the equipment and the hazards involved. They must receive certain training as outlined later in this policy.

8. UNQUALIFIED PERSONS: Employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements of 29 CFR 1910.303 through 1910.308 who must be trained in and be familiar with electrically related safety practices which are necessary for their safety.

9. TRAINING: Hands on classroom or on-the-job style that affords all persons the ability to fully understand and comprehend the work practices necessary to protect their safety when working on, near, or with energy sources.

C. TRAINING

1. There are three listed classifications of training identified by 29 CFR 1910.147, they are authorized, affected, and others.

2. Authorized employees shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of energy available in the workplace, and the methods and means necessary for energy isolation and control.

3. Affected employees shall be instructed in the purpose and use of the energy control procedure.

4. The employees shall be instructed about the procedure, and about the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out or tagged out or both.

5. There are two listed job classifications of training identified by 29 CFR 1910.331 through 1910.335, they are qualified and unqualified.

6. Qualified employees shall, at a minimum, be trained in and familiar with the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, the skills and techniques necessary to determine the nominal voltage of exposed live parts, and the clearance distances specified in 29 CFR 1910.333© and the corresponding voltages to which the qualified person will be exposed.

7. Unqualified employees shall be trained in and familiar with any electrically related safety practices not specifically addressed by 29 CFR 1910.331 through 1910.335 but which are necessary for their safety.
8. Whether an employee is considered to be qualified will depend upon various circumstances in the workplace. It is possible and in fact, likely for an individual to be considered "qualified" with regard to certain equipment in the workplace, but "unqualified" as to other equipment. An employee who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at his or her level of training and who is under the direct supervision of a qualified person is considered to be a qualified person for the performance of those duties. All training will be hands-on, by a qualified trainer. Copies of training materials, lesson plans, competency exams, lists of attendees, qualifications of trainers will be found in appendix G of this document.

9. Initial training shall be certified by management or its representative for all levels. Initial training shall be accomplished before the employee's initial exposure to hazardous energy in the workplace.

10. Retraining will be done on an annual basis or when there is a change in job assignments, a change of machinery, equipment or processes that presents a new hazard when there is a change in the energy control procedures. Retraining shall also be conducted whenever a periodic inspection reveals, or management has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

D. PROTECTIVE MATERIALS AND HARDWARE

1. As the employer, we will provide all protective materials and hardware to effectively isolate, secure, and/or block all machinery and equipment from energy sources.
    i. The lockout and tag out devices shall be singularly identified; shall be the only devices used for controlling energy; shall not be used for any other purpose;
    ii. Shall be durable to withstand the environment they are exposed to for the duration of exposure;
    iii. Standardized within the facility in at least one of the following criteria; color, shape, or size and in the case of tags; print and format.

iv. Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques; tag out devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal; tag out device attachment shall be of a non-reusable type, attachable by hand, self locking, and non-releasable with a minimum locking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all environment-tolerant nylon cable tie.

v. The devices shall be identifiable and shall indicate the identity of the employee applying the device(s). Tag out devices shall also warn against hazardous conditions if the machine or equipment is energized.

2. This policy will be to use both lock and tag in all applications as per 29 CFR
3. 1910.333 (b)(2)(iii)(all) for not only the electrical, as noted, but for all hazardous energy isolation. Locks, multiple lock hasps, tags, gate valve lockout devices, ball valve lockout devices, and all other devices for this program shall be issued by management to authorized and qualified employees. These employees shall have the training and competency to use these devices to protect not only them but the affected, unqualified and all other employees.

4. To prevent confusion as to the locks being used for the lockout system in our facility we have chosen specific DO NOT OPERATE tags. No other locks/tags shall be used in our facility for any purpose. The employee's name shall be inscribed on each lock (or on a tag attached to each lock) for the personal lockouts, and the spare locks shall be inscribed with a company identification number. Locks shall be issued with only one key and any additional keys shall be destroyed or kept under lock and key by the plant manager to prevent unauthorized removal.

5. If an energy-isolating device is not capable of being locked out a tag out system shall be used. When this occurs during replacement, repair, renovation or modification of machines or equipment and whenever new machines or equipment is installed, energy isolating devices for such machinery or equipment shall be designed to accept a lockout device.

6. When a tag out device is used by itself, it shall be attached at the same location that a lockout device would have been attached and additional means to provide a level of safety equivalent to that of a lockout will be implemented. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures to reduce the likelihood of inadvertent energization.

7. When two or more employees are working on the same machinery or equipment, each is responsible for affixing his or her lock to provide full employee protection.

E. PERIODIC INSPECTIONS

1. Periodic inspections shall be conducted at least annually to ensure that the procedure and the requirements of this policy are being followed. These periodic inspections shall be both random audits and planned visual observations. The inspection shall be performed by a person authorized by management other than the one implementing the energy control procedure that is being inspected. Three areas will be reviewed during this inspection:
    i. Are the proper steps in the energy control procedure being followed
    ii. Is the procedure adequate to provide the necessary protection from all types of hazardous energy and what, if any, changes are needed.
    iii. Does the employee involved know and understand his/her responsibilities under this procedure.

2. All employees involved in a periodic inspection will be identified and the name of the inspector will appear on the certification document used to certify the inspection. Also included on this certification document shall be the time, date, equipment the procedure was performed on, any deviations or inadequacies in the performance of the procedure, retraining necessary, and/or disciplinary action necessary, if any.

3. If problems with the procedure are encountered the process will be re-evaluated and more appropriate procedures will be implemented. These inspections shall be done on a one-on-one basis and also in group meetings.

4. If deviations are identified or if employees do not clearly understand the procedure, retraining will be conducted to the extent that the procedures are properly followed. Certification of this retraining is required.

5. Each supervisor shall effectively enforce compliance with this policy and procedure including the use of corrective disciplinary actions when necessary. Failure of the worker to follow the lockout/tag out procedures will be dealt with as inadequacy in supervision and could result in corresponding disciplinary action against the involved supervisor. If it is determined that the supervisor did not effectively administer the lockout/tag out procedures.

Immediate termination can be invoked for any infraction that endangers the safety of life or limb of the employee or any co-workers.

F. OUTSIDE PERSONNEL (Contractors, Etc.)

1. When outside service workers or contractors are used for in plant work, the following shall be observed and documented:
    i. An assessment will be made of the work to be performed by the service worker or contractor, including;
        a. What work will be done
        b. Does the work require lockout/tag out?
        c. Will there be any possible exposure of hazardous energy to our employees during the time outside service personnel are performing their work.
    ii. If the answer to b and c is "no" then nothing more is required.
    iii. If the answer to either b or c is "yes" then the following must be done:
        a. A review of both on-site lockout/tag out procedures and the outside contractor's lockout/tag out procedures shall be made.
        b. This review shall be communicated to the on-site employees. Compliance with the outside contractor procedure shall be enforced when the outside contractor has an appropriate procedure.
        c. This policy and procedure shall be conveyed to the outside contractor to ensure his/her employees of the lockout/tag out protection.

2. The above procedures shall be documented by completing the "contractor orientation meeting form attached to this document and forwarding it to the plant manager for filing.

3. No work will be commenced in the plant by outside personnel or contractors before the plant manager has certified that they are aware of these procedures.

G. ENERGY ISOLATION CONTROL MEASURES

1. EMPLOYEES AUTHORIZED OR QUALIFIED: Only authorized employees shall perform lockout and/or tag out measures. Only qualified employees shall perform lockout/tag out for exposed electrical equipment.

2. NOTIFICATION OF EMPLOYEES: Affected employees shall be notified by management or authorized employee of the application and removal of lockout devices. This shall be done before the controls are applied, and before they are removed from the machine and equipment.

3. PREPARATION FOR SHUTDOWN: Before the authorized or qualified employee turns off or locks out the machinery or equipment he/she will have knowledge of the type and magnitude of all energy sources to the machinery, and the hazards of the energy to be controlled, and the means to control the energy. This will be found in the isolation control procedure for the particular machine or equipment

4. ORDERLY SHUTDOWN: The machine or equipment shall be turned off or shut down using the procedures required by the specific energy isolation control procedure found in the attachment to this policy. An orderly shutdown must be utilized to avoid any additional or increased hazards to employees as a result of equipment de-energization. Orderly shutdown at this facility includes having placed the equipment in local control rather than computer control so that the start/stop station controls are activated for the authorized person to use in the "try out" portion of the procedures.

5. MACHINE OR EQUIPMENT ISOLATION: All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

6. LOCKOUT OR TAG OUT DEVICE APPLICATION: Lockout or tag out devices shall be affixed to each energy source isolating device by authorized or qualified employees. Lockout devices shall be affixed in a manner that will hold the energy isolating devices in a "safe" or "off" position.
    i. Where tag out devices are used they shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited. They will be affixed in such position as to be immediately obvious to anyone attempting to operate the device.
7. STORED ENERGY: Following the application of lockout or tag out devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. Stored electric energy which might endanger personnel shall be released, by a qualified employee. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded, if the stored electric energy might endanger personnel. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

8. VERIFICATION OF ISOLATION: Prior to starting work on machines or equipment that have been locked or tagged out or both, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.
    i. After the lockout of the equipment has been accomplished it is necessary that the authorized person attempt to restart the equipment using the start switch located at the equipment. It is necessary that the authorized person first check with the operator to verify that the controls have been made local or this check will not be valid. After using the start switch, and the equipment did not operate, engage the stop switch to prevent inadvertent start-up when re-energized.
    ii. A qualified employee shall verify that electrical energy has been isolated and de-energized. Qualified personnel will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are de-energized. The tests will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed even though specific parts of the circuit have been de-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment will be checked for proper operation immediately after the test.

9. RELEASE FROM LOCKOUT AND/OR TAG OUT: Before lockout and/or tag out devices are removed and the energy restored to the machine or equipment, the following steps must be taken by the authorized and/or qualified person(s):
    i. The work area shall be inspected to ensure that non-essential items have been removed and to ensure that machine or equipment components are operationally intact.
    ii. The work area will be checked to ensure that all employees have been safely positioned or removed. Before lockout and/or tag out devices are removed and before machines or equipment are energized, affected employees shall be notified that the lockout and/or tag out devices are being or have been removed.
    iii. Each lockout or tag out device will be removed from each energy isolating device by the employee who applied the device.

H. SPECIAL PROCEDURES FOR WORKING ON OR AROUND ELECTRICAL CIRCUITS AND EQUIPMENT

1. DE-ENERGIZING EQUIPMENT: An assessment will be conducted to determine the specific procedures for de-energizing circuits and equipment before they are de-energized.
    i. The circuits and equipment to be worked on will be disconnected from all selector switches, and interlocks will not be used as the sole means for De-energizing circuits or equipment. Interlocks for electric equipment will not be used as a substitute for lockout and tagging procedures.
    ii. Stored electrical energy which might endanger personnel will be released. Capacitors will be discharged and high capacitance elements will be short circuited and grounded, if the stored energy might endanger personnel.
    iii. Stored non-electric devices that could re-energize electric circuit parts will be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

2. APPLICATION OF LOCKS AND TAGS: A "lock and tag" will be placed on each disconnecting means used to de-energize circuits and equipment on which work is performed. The lock will be attached so as to prevent persons from operating the disconnecting means unless they resort to undo force or use of tools.
    i. Each tag will contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.

3. VERIFICATION: Only qualified persons will operate the equipment operating controls and verify de-energization to ensure the equipment cannot be restarted.
    i. Only qualified persons will conduct tests and visual inspections, as necessary to make sure that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.

4. RELEASE FROM LOCKOUT AND TAG OUT: Employees exposed to the hazards associated with re-energizing the circuit or equipment will be warned to stay clear of circuits and equipment.

I. GROUP LOCKOUT

1. When servicing or maintenance is to be performed by a crew, they will each be provided with a lock and tag. An authorized employee will assume responsibility of the entire crew so as to ascertain the exposure status of each group member and ensure continuity of protection.

2. Each employee will affix a personal lockout or tag out device to a group lockout device lockbox or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.

J. SHIFT OR PERSONNEL CHANGES

1. If there is a shift or personnel change while machines or equipment are locked out, specific procedures have been developed and are to be followed to minimize exposure to hazards from the unexpected energization, start-up of the machine or equipment, or release of stored energy.

2. The person from the off going shift shall inform the oncoming shift of the procedures used to lockout and verify the purpose of the lockout condition, and any and all potential stored energy. At that time the oncoming employee will attach their lock to the energy isolating device and then the off going employee will remove their lock from the energy isolating device.

3. Should there not be a replacement employee for an off going employee the off going employee shall inform management of the lockout condition and have management put their lock on the machine or equipment following the procedures above.

Addendum H: Fire Prevention

Purpose and Scope

The purpose of Terra Contracting, Inc. Fire Protection Program is to protect employees from injury or death and prevent property damage caused by uncontrolled fire hazards in the workplace. This is accomplished by training employees to identify fire hazards and taking the appropriate actions to correct hazardous conditions before a fire results.

This Fire Prevention Program applies to all Terra Contracting, Inc. employees and contractors. Any deviations from this program must be immediately brought to the attention of the Safety Specialist. Terra Contracting, Inc.'s Emergency Action Plan covers the procedures for responding to fire emergencies.

Program Responsibilities

Management. Terra Contracting, Inc. is responsible for providing the tools and resources necessary to implement this program and for ensuring that the requirements in this program are being followed by all employees.

Safety Department/Program Administrator. The Safety Department/Program Administrator is responsible for:

- Ensuring each department has a copy of the program
- Ensuring all employees are trained on the program
- Scheduling training
- Stopping any unsafe work practices
- Developing proper storage and handling procedures for hazardous materials
- Maintaining records pertaining to the program
- Periodically reviewing the program and updating it as needed

Supervisors. Supervisors are responsible for:

- Ensuring assigned employees are trained on the program
- Identifying all major fire hazards
- Identifying and controlling potential ignition sources
- Notifying the Program Administrator when changes in operation increase the risk of fire, introduce a new ignition source or introduce a new hazardous material
- Identifying and correcting any unsafe acts or conditions immediately
- Identifying approved storage areas for combustible materials to employees

Employees. All employees are responsible for:

- Attending assigned training
- Understanding and following all procedures in this program
- Conducting operations safely to limit the risk of fire
- Controlling the accumulation of combustible materials in their work area
- Reporting potential fire hazards to their supervisor

Housekeeping

Combustible Solid Materials

At a minimum, all waste, scrap or trash shall be disposed of at the end of each shift. Waste will be placed in the provided trash receptacles or exterior dumpsters. At no time should waste, scrap or trash be left on the floor, machines or work areas overnight. Excessive amounts of combustible materials should be removed throughout the work shift to reduce the chance of fire or if it creates another hazard such as a slip or fall.

Storage of large quantities of combustible materials is allowed only in approved areas. Limited storage will be allowed at workstations with supervisor approval. All exterior trash dumpsters shall be kept a minimum of 75 feet away from any building.

Combustible and Flammable Liquids Storage

All combustible and flammable liquids and aerosol cans will be stored in the yellow flammable liquid storage cabinets or in the marked flammable liquid storage room when not in use. Flammable liquid storage cabinets are strategically located throughout our facilities and the flammable liquid storage room is located in the maintenance area. The doors of the flammable liquid storage cabinets must be kept closed at all times unless being accessed.

All combustible liquids will be kept in sealed containers when stored. All flammable liquids will be stored and distributed in approved safety cans. Non-liquid combustible materials (e.g. paper, wood, plastics, etc.) shall not be stored inside the flammable liquid storage cabinets or flammable liquid storage room. At no time shall gasoline-fueled equipment be refueled within any Terra Contracting, Inc. building.

Combustible and Flammable Liquid Spill Clean-up

All spills of flammable or combustible liquids shall be cleaned up immediately. Rags, paper towels or other spill clean-up materials shall be disposed of immediately in the approved containers located in the Operations Department. All oily rags or paper towels shall be disposed of at the end of each shift in the approved/containers located in the Operations Department. These containers will be emptied into the trash dumpsters only on the morning of trash pick-up.

Smoking
Smoking is prohibited in all Terra Contracting, Inc. buildings. Outdoor designated smoking areas are identified with signage and Fire-safe metal receptacles are available for disposal of all ash and buds. Non-smoking areas will be checked periodically for evidence of discarded smoking materials.

Ignition Sources

Terra Contracting, Inc.'s buildings contain a wide variety of ignition sources and heat producing equipment that could start a fire if not properly maintained and guarded. These ignition sources will be reviewed annually to determine if all safe-guards are in place and regular maintenance has been performed to reduce the potential for a fire.

Electrical Sources

All employees will follow Terra Contracting, Inc.'s Electrical Safety Program to reduce the possibility of an electrical fire. No storage is allowed in electrical distribution closets at any time. All electrical distribution closets will remain locked at all times. A three-foot clearance must be maintained around all electrical panels. All electrical panel covers and access doors must remain closed and secured from unauthorized access.

All electrical equipment must be kept clean. Grease and dust is to be removed annually unless the equipment is located in a high dust production area (see frequency chart above).

Heating and Water Heating Units

All water heaters will be inspected annually by a trained and knowledgeable individual to ensure proper operation and that all safety devices are functioning. Heating units will be inspected in the third quarter of each year. No storage is allowed within four feet of any heating unit.

Portable Heaters

All portable heaters shall be approved by the Program Administrator. Portable electric heaters shall have tip-over protection that automatically shuts the unit off when it is tipped over. There shall be adequate clearance between the heater and any combustible materials at all times. Employees must turn off portable heaters when leaving their work areas.

Open Flames

All employees will follow Terra Contracting, Inc.'s Hot Work Program to reduce the possibility of sparks, slag or open flames starting a fire. Torches shall be placed so that the flames are at least 18 inches away from combustible surfaces. They will not be used in the presence of dusts, vapors, flammable or combustible liquids, paper or other combustible materials. Torches shall never be left unattended while they are burning.

Static Electricity

Terra Contracting, Inc. recognizes that it is impossible to completely prevent the generation of static electricity, but realizes it can be reduced by preventing the buildup of static charges. One or more of the following preventive methods will be used to reduce static buildup for static-accumulating equipment:

- Grounding
- Bonding
- Maintaining a specific humidity level (usually 60-70 percent)
- Ionizing the atmosphere

When a static-accumulating piece of equipment is unnecessarily located in a hazardous area, the equipment will be relocated to a safe location.

Office Hazards

Drop cords or multi-plug strips must be authorized and provided by the Program Administrator. Extension cords must never be placed under carpets, through doorways or across walkways. Personal appliances (e.g. fans, microwaves, coffee makers) may not be used without prior approval of the Program Administrator. All non-essential electrical equipment must be turned off at the end of the workday.

Fire Detection & Protection

Fire Extinguishers

Terra Contracting, Inc. buildings are all equipped with portable fire extinguishers. The type and size of extinguishers will be determined by the Program Administrator in cooperation with the local fire department. These extinguishers are wall mounted and marked with signage above their location. All Terra Contracting, Inc. vehicles are also equipped with fire extinguishers. All employees should be aware of the fire extinguisher locations, especially those nearest to their normal workstation. Terra Contracting, Inc. does not require employees to extinguish fires.

Employees will be trained in the PASS method of extinguishing fires.

P *—Pull the pin on the extinguisher*
A *—Aim the nozzle at the base of the fire*
S *—Squeeze the handle*
S *—Sweep the nozzle side to side*

All fire extinguisher will be inspected monthly to ensure it is in its designated location, has not been tampered with and is clearly visible with nothing obstructing access. All fire extinguishers will be inspected annually by and recharged or repaired to ensure they are operational. A tag will be attached to show the inspection date and the signature of the person who performed the inspection.

Exit Doors and Routes

All exit routes and doors shall be kept clear at all times. Exit doors must be able to open from the inside at all times without the use of keys, tools or special knowledge. Exit routes will be maintained during periods of construction, repairs or building alterations.

Employee Training

Every employee will be trained on recognizing general fire hazards, the specific fire hazards associated with their job and the procedures to follow in the event of a fire emergency (fire response information can be found in the Emergency Action Plan). This training will include a yearly refresher.

Training will consist of the following:

- Proper housekeeping practices
- Ignition source identification
- Information on fire detection and suppression systems
- Proper response in the event of a fire

Supervisors must review the Fire Prevention Program with their employees whenever:

- The employee's responsibilities under the program change
- Approved changes are made to the program
- There is a change in the type of fire protection equipment or notification system
- A known fire hazard is added to the work environment
- A fire protection procedure fails

Periodic Program Review

The Program Administrator will conduct an annual review to assess the program’s effectiveness. The review will consider the following:

- General safety observations
- Lessons learned from fire incidents
- Changes in operations or equipment
- New technology

- Regulatory changes

Addendum I: First Aid

1. ON-SITE FIRST AID**:**
    i. **Terra Contracting Inc.** will provide and maintain first aid kits, commensurate with the number of employees and readily available on the job site.
        i. First aid supplies and kits are to be inspected before work begins on a weekly basis and shall have adequate supplies for construction activities.
    ii. Medical and non-medical emergency telephone numbers will be posted in office.
    iii. No employee, as a condition of work, is required to provide CPR or First Aid Services to an injured person. Such action will be considered Good Samaritan Acts only.
    iv. Terra Contracting requires that first aid providers must be trained and certified through a reputable agency such as the American Red Cross or equivalent and that the training be documented.
    v. In an instance where a hospital, clinic, or similar is not in proximity, first aid providers will

be made available and trained to render first aid.

vi. When eyes or body of any person may be exposed to corrosive materials, emergency eyewash equipment is to be available.

2. EMERGENCY ACTION**:**
   i. **Terra Contracting Inc.** will be responsible for transportation of all non life-threatening injuries that require medical attention.
   ii. For all life-threatening injuries or illnesses, **Terra Contracting Inc.** will immediately call for medical assistance by dialing 911.
   iii. **Terra Contracting Inc.** uses the following facility for medical attention other than emergency: Concentra Occupational Health.

Addendum J: Forklift Safety Policy

This policy will establish the safety requirements for general safety, operator qualifications, operator training, operation, and inspection of powered industrial trucks (forklifts) as required by Occupational Safety and Health Administration (OSHA).

A. REQUIREMENTS

1. GENERAL SAFETY
   i. Hazards associated with the use of forklifts include:
      a. Overloading
      b. Instability of the load
      c. Obstruction of the free passage of the load
      d. Collision with objects or pedestrians

e. Poor maintenance, and
f. Use of equipment for a purpose for which it was not intended or designed.

ii. Smoking is prohibited when operating material handling equipment.
iii. Seat belt use is mandatory if equipped.
iv. Fuel tanks shall not be filled while the engine is running.
v. Fuel or oil cap shall be replaced before starting the engine.
vi. Fuel system leaks shall be repaired before forklifts can be operated.
vii. Forklifts shall be kept in clean condition (i.e., free of litter, excess oil, and grease).
viii. Work area shall be properly ventilated and kept clean and dry.
ix. Diesel/gasoline-powered forklift operations shall take place only in well-ventilated areas.
x. Passengers are prohibited except on a certified man-loaded platform. When lifting a person on a platform, the operator must remain at the controls of the forklift until the person exits the platform.
xi. Forklift should be equipped with an operational controlled horn, whistle, gong or other sound producing device (s).
xii. Forklifts shall not be added to or modified.
xiii. Do not block access to the fire aisles, stairways, or fire equipment.
xiv. Forklifts shall not be used to push, pull or tug equipment.
xv. Fire protection equipment shall be present in the work area.
xvi. Do not use an open flame to check the level or to check for leakage of any fluid.
xvii. Electric forklifts shall be charged in designated charging areas only.
xviii. Small oil spills can be cleaned up by the operator, labeled, and waste materials deposited in the proper waste area.
xix. Large spills of fuel/oil or battery acid should be immediately reported to the Safety Officer.
xx. Mishaps or close calls shall be reported to the safety manager.

B. OPERATOR QUALIFICATIONS

1. Only trained and certified operators will be permitted to operate forklifts, pending completion of the following certification requirements:

2. Physical examination: qualified as to visual, auditory, physical, and mental ability to operate equipment safety.

3. Driver's license: valid State vehicle operator's license.

4. Classroom safety training: Forklift Safety Familiarization.

5. Performance training: On-the-job training should be conducted at the site the trainee will operate the forklift, with the usual operating conditions for that location, and the specific type of forklift the employee will operate.

    i. An evaluation of the operator's competence while operating the forklift is required by the standard after the initial, or refresher training and at least every three years as directed by OSHA 1910.178, Powered Industrial Trucks.
    ii. Refresher training shall be performed if deemed necessary by supervisor review of operator performance or after at fault incident or near miss is documented or observed.

C. OPERATOR TRAINING

1. Training is required for all new operators regardless of previous experience.

2. Training shall be conducted by a qualified instructor.

3. The training program shall emphasize safe and proper operation to avoid injury to the operator and others, and prevent property damage, and shall include the following:

4. FUNDAMENTALS OF POWERED FORKLIFTS:
   i. Characteristic of the forklifts including: variations of forklifts in the workplace.
   ii. Similarities to and differences from automobiles.
   iii. Operating instructions and warnings in the operating manual for the forklift.
   iv. Braking method and characteristics with and without a load.
   v. Visibility with and without a load.
   vi. Load handling capacity, weight and load center.
   vii. Stability characteristic with and without a load
   viii. Control location, function, method of operation, identification of symbols
   ix. Load handling capabilities: forks, attachments
   x. Other characteristics of specific forklifts

5. ENVIRONMENT AND ITS EFFECT ON FORKLIFT OPERATIONS TO INCLUDE:
   i. Floor and ground conditions including temporary conditions .
   ii. Ramps and inclines with and without load.
   iii. Narrow aisles, doorways. Overhead wires and piping and other areas of limited clearance.
   iv. Operations near the edge of a dock or edge of improved surface.
   v. Other special operating conditions and hazards that may be encountered. (e.g. operations inside of enclosed vehicles, etc.)

6. OPERATIONS OF FORKLIFTS TO INCLUDE:
   i. Proper operational inspection and approved method for removing from service.
   ii. Load handling techniques: lifting, lowering, picking up, placing, tilting
   iii. Traveling with and without loads; turning corners
   iv. Parking and shutdown procedures
   v. Other special operations conditions for specific conditions

D. OPERATION

1. Within processing facilities, additional employees shall serve as spotters to ensure clearance.

2. Forklifts shall not be driven up to anyone standing in front of a bench or other object.

3. Individuals are prohibited from standing or walking under the elevated portion of any loaded or empty forklift.

4. Individuals are prohibited from placing of arms or legs between the uprights of the mast or outside of the operating zone of forklifts.

5. An overhead guard shall be used as protection against falling objects such as small packages, boxes, or bagged material.

6. Slow forklift down and sound the horn at cross aisles and other locations where vision is obstructed. When vision is obstructed by the load, a spotter shall be used.
7. Loads will be secured before moving during operations. Loads with a potential for uncontrolled movement to the forklift tines (hereinafter referred to as forks) or carriage backrest will be secured with a rope, chain, or other rigging method.

8. Check for adequate clearances on all sides and top of load or mast before passing through doors or aisles or under pipes or overhead obstructions.

9. Operate at speeds that allow for complete operator control.

10. Whenever possible, tracks will be crossed at a diagonal. Parking closer than 8 feet from the center of railroad tracks is prohibited.

11. Fork lengths will be sufficient (a minimum of 2/3 of load length unless specified longer) to safely handle and balance a load. Forks will be spread to support and laterally balance a load.

12. Grades will be ascended or descended slowly. When ascending or descending grades in excess of 10 degrees, loaded forklifts will be driven with the load upgrade.

13. Counterbalanced, center-control forklifts manufactured after December 31, 1993, that have a sit-down, non elevating operator position are required to have operator restraint systems (seatbelts) or an enclosure that is intended to assist the operator in reducing the risk of entrapment of the operator's head and/or torso between the forklift and ground in the event of a tip over.

14. Maintain a safe distance from the edge of ramps or platforms while on any elevated dock, platform, or freight car.

15. Do not start or operate the forklift, any of its functions or attachments, from any place other than from the designated operator's position.

16. Never put any part of the body within the reach mechanism of the forklift or other attachments.

17. Understand the forklift limitations and operate the forklift in a safe manner as not to cause injury to personnel. The safety of pedestrians comes first at all times:
    i. Ensure that personnel stand clear of the rear swing area before conducting turning maneuvers.
    ii. Exercise particular care at cross aisles, doorways, and other locations where pedestrians may step into the path of travel of the forklift.
    iii. Make 90-degree turns rather than angling to avoid placing pedestrians in the mast blind spot.

18. BEFORE LEAVING THE OPERATOR'S POSITION:
    i. Bring the forklift to a complete stop.
    ii. Place directional controls in neutral.
    iii. Apply the parking brake.
    iv. Lower load engaging means fully unless supporting an elevated platform.
    v. Wheels are blocked if parked on an incline.

19. Caution should be taken not to contact overhead installations, such as lights, wiring, pipes, sprinkler systems, etc.

20. Keep a clear view of the path of travel and observe for other traffic, personnel, and safe clearances.

21. Make starts stops, turns, and direction reversals in a smooth manner so as not to shift load and/or overturn the forklift.

22. Avoid running over loose objects or into “pot holes” on the roadway surface.

23. Handle loads only within the capacity of the forklift.

24. When entering a truck from a dock ensure that wheel chocks are used and that the floor of the truck is sound before entry.

25. All traffic regulations shall be observed when operating on a roadway.

E. INSPECTION AND MAINTENANCE

1. A preoperational inspection of all forklifts shall be performed at least once per shift before being placed into service, and documented on the checklist located with each forklift.

2. If any inspection shows a condition(s) that adversely affects safety, the forklift will be taken out of service by using a "DANGER: Do Not Use or Operate" tag.

3. Maintenance and inspections of all forklifts shall be performed with the following practices:
    i. A scheduled planned maintenance, lubrication, and inspection system shall be followed; consult the manufacturer’s recommendations.
    ii. Only trained and authorized personnel shall be permitted to maintain, repair, adjust, and inspect forklifts in accordance with manufacturer’s specifications.

F. ROLES AND RESPONSIBILITIES

1. MANAGEMENT
    i. Ensure that all employees in their respective organizations receive classroom safety training and certification according to the provisions of this procedure before operating any equipment that is covered in this procedure.
    ii. Ensure employees complete recertification training every three years, as directed by manager or supervisor or as required by OSHA CFR 1910.178, Powered Industrial Trucks, (l)(4).
    iii. Ensure employee/operators evaluated for performance at least every three years.
    iv. Ensure employees follow all guidelines outlined in this procedure.
    v. Develop and implement On-the-Job training as required.
    vi. Ensure annual maintenance is performed on all forklifts.

2. OPERATORS
    i. Complete all training requirements before operating any equipment covered in this procedure.
    ii. Complete recertification training.

iii. Possess a valid State driver's license.
iv. Possess proof of a valid physical examination.
v. Ensure that preoperational inspections are conducted each shift and recorded on the pre-operational inspection checklist maintained with each forklift.
vi. Report the loss of a State driver's license to manager or supervisor.
vii. Report any mishaps/close calls to manager immediately.
viii. If, at any time, a forklift is found to be in need of repair or is defective or unsafe in any way, take the forklift out of service until it has been restored to a safe operating condition.
ix. Responsible for connecting electric forklift to proper battery charger at end of the shift or as needed.
x. Follow all guidelines outlined in this procedure.
xi. Provide classroom safety training and certification for forklift operators.
xii. Maintain certification records and ensure employees are contacted when technical training requirements are due to be renewed.
xiii. Set parking brake, place controls in neutral and remove keys when 25 feet or more away from the lift, or the lift is not within view.

G. DEFINITIONS

1. ATTACHMENT – A device other than conventional forks or load backrest extension, mounted permanently or removable on the elevating mechanism of a forklift (i.e., for extensions, clamps, rotating devices, side shifters, load stabilizers, ram, and booms).

2. AUTHORIZED OPERATOR – An operator whose specific duties require the operation of a forklift and who has completed appropriate training. Authorized Operators are certified as Forklift Operators upon completion of classroom safety training and element-specific performance training or having a current certification that proves they have met other Forklift Operators certification/training criteria requirements established by CFR Title 29, Part 1910.178.

3. CAPACITY – The capacity a forklift equipped with load carriage and forks or attachments that are the weight at a specified load center that a forklift can handle in a carry position.

4. CARRIAGE – A support structure for forks or attachments, generally roller mounted, traveling vertically within the mast of a forklift.

5. CENTER OF GRAVITY (LOAD) – That point at which the load mass is concentrated. It is located horizontally by its distance from the vertical forklift face and vertically by its distance above the load-bearing surface of the forks. Except where otherwise indicated, this point is located in the vertical plane of the forklift's longitudinal centerline.

6. FORKS – Horizontal tine-like projections that are normally suspended from the carriage for engaging and supporting loads.

7. FORKLIFT – A powered industrial vehicle designed to handle, carry, lift, stack, and tier material. These vehicles can be powered by battery, gasoline, LP-gas, and diesel.

8. FORK EXTENSION – An attachment that is added to the forklift's forks to increase the forks effective length for handling oversized uniformly distributed loads.

9. HANDLING – The loading and unloading of a load in preparation for storage or transportation.

10. LOAD BACKREST – That portion of the carriage and forks serving to restrain the load when the load is tilted rearwards or upward.

11. LOAD CENTER – The horizontal longitudinal distance from the intersection of the horizontal load carrying surfaces and vertical load engaging faces of the forks to the load's center of gravity.

12. MAXIMUM FORK HEIGHT – The fork height attainable in fully raised position when loaded.

13. OVERHEAD GUARD – A framework fitted to a forklift over the head of a riding operator for the purpose of providing protection for the operator from falling objects.

14. RATED CAPACITY – The weight established by the manufacturer at a required load center that the forklift can transport and stack to a height established by the manufacturer.

15. UNATTENDED – When an operator secures a forklift and is not longer in the operator's position and not within view of the forklift or is more than 25 feet away.

Addendum K: Hand & Power Tool Safety

This **Terra Contracting Inc.** policy will establish safety requirements for all employees in the safe use, storage and maintenance of hand tools.

A. REQUIREMENTS

1. GENERAL HAND TOOL REQUIREMENTS
    i. All hand tools, whether furnished by the employer or employee shall be maintained in a proper safe working condition. Any tool found not in proper safe working condition, or develops a defect during use, shall be immediately removed from service until properly repaired or replaced.

ii. Wooden handles of all tools shall be kept free of splinters or cracks and shall be kept tight in the tool.
iii. Removal of guards is forbidden; all guarding shall meet the requirements of ANSI B15.1.
iv. Insulated tools used for hot electrical work shall meet ANSI Standards for electrical safety tools (tools which meet this standard shall be marked by the manufacturer with a small double triangle and the number 1000 followed by a "v" or the word "volt".)

2. SAFE WORK PRACTICES
   i. Select the right tool for the job.
   ii. Use tools correctly.
   iii. Keep tools in good condition.
   iv. Keep tools properly stored when not in use.
   v. Use the proper personal protective equipment (PPE).
      1. Especially in instances in which employees are exposed to hazards of falling, flying, abrasive and splashing objects or:
      2. Exposed to harmful dusts, fumes, mists, vapors, or gases.

B. METAL CUTTING TOOLS

1. CHISELS
   i. Safety glasses with side shields or goggles shall always be worn when using a chisel.
   ii. Chisels shall be heavy enough so that they do not buckle or spring when struck.
   iii. Dress heads at the first sign of mushrooming. Failure to follow this rule may lead to flying chips that may cause serious injury.
   iv. Always use a hammer that is heavy enough to do the job.
   v. A side screen or shield shall be set up to protect nearby workers from flying debris or they shall wear safety glasses with side shields or goggles to protect their eyes.

2. TAP AND DIE
   i. Work should be mounted firmly in a vice. Never attempt to hold work in your hands.
   ii. If you use a punch or chisel to remove a broken tap, wear safety glasses with side shields or goggles.

3. HACK SAWS
   i. Install blades so teeth point forward.
   ii. During work overhead, wear goggles.

4. FILES
   i. Never use a file as a hammer or to pry.
   ii. Always make sure the handle is tight.
   iii. Safety glasses with side shields or goggles shall be worn.

5. TIN SNIPS
   i. Always use a pair of snips that are heavy enough so only one hand is required.
   ii. Wear gloves when handling sheet metal to prevent hand injuries. Safety glasses with side shields or goggles shall be worn.
   iii. Keep the jaws of the snips tight and well lubricated.

6. PUNCHES
    i. Punches shall be held at right angle to the work.
    ii. Safety glasses with side shields or goggles shall be worn.

C. WOOD CUTTING TOOLS

1. WOOD CHISELS
    i. Handles shall be kept free of splinters and cracks.
    ii. All work to be cut shall be free of nails to avoid damage to the blade and to prevent a chip from flying into the user's face or eye.
    iii. Safety glasses with side shields or goggles shall be worn.
    iv. Always keep wood chisels sharp. Protect sharp edges in storage either by covering or by placement of tools in a holder or rack so they do not present a hazard.

2. SAWS
    i. Use the proper saw for the work to be performed (crosscut saw for crosscutting, rip saw for ripping).
    ii. Keep saws sharp and well set to prevent binding.
    iii. Guide the saw with the thumb of your free hand held high on the saw when starting a cut, (don't place a thumb on the material being cut).
    iv. Safety glasses with side shields or goggles shall be worn.

3. AXES AND HATCHETS
    i. Always make sure axe and hatchet handles are firmly mounted in the axe or hatchet head.
    ii. Keep axe and hatchets sharp.
    iii. Use the proper size tool for the job.
    iv. Never strike hard metal surfaces.
    v. Safety glasses with side shields or goggles shall be worn.

D. MISCELLANEOUS CUTTING TOOLS

1. Planes, scrapers, bits, and draw-knives shall only be used by experienced personnel. These tools shall be kept sharp and in good condition. When they are not being used, they shall be placed in a rack on the bench or in a toolbox in such a way that they shall be protected from damage and shall not present danger to workers.

2. Safety glasses with side shields or goggles shall be worn.

3. Aside from using a draw-knife, always cut away from the body when using a knife.

4. Horseplay with knives is particularly dangerous. Throwing, fencing, or trying to cut objects into smaller and smaller pieces, and similar practices is absolutely prohibited.

E. TORSION TOOLS/WRENCHES

1. Wrenches shall be pulled, not pushed, during operation.

2. Use the correct size wrench.

3. Never use wrenches with jaws that are sprung or cracked.

F. PIPE WRENCHES

1. Inspect pipe wrenches frequently, especially the adjusting nut of the wrench.
2. Never use a pipe wrench on nuts or bolts
3. Pipe wrenches are not designed to be used on valves, or to be struck with a hammer.

G. PLIERS/WIRE CUTTERS

1. Safety glasses with side shields or goggles shall be worn.
2. Do not use pliers as a substitute for a wrench. Pliers do not hold work securely.

H. SCREWDRIVERS

1. Do not use screwdrivers for punches, wedges, pinch bars, or for prying.
2. Keep blades properly dressed in the shape they were designed or replace them.
3. The tip of the screwdriver shall fit snugly in the screw.
4. Never use a screwdriver for electrical work unless it is an ANSI approved electrical insulating screwdriver (marked with double triangle and 1000v).
5. Never hold work in your hand. Use a proper vise.

A. OTHER TORSION TOOLS

1. Use special care when handling torque wrenches.
2. Always return torque wrenches to bottom 20% of useable range before storage.

J. SHOCK TOOLS/HAMMERS

1. Make sure hammer heads are firmly on handle before each use.
2. Never use hammers with damaged heads or damaged handles. Make sure handles are free of splinters or splits.
3. Wear safety glasses with side shields or goggles when using a hammer.
4. Never use a steel hammer on hardened steel surfaces.
5. Select proper hammer for the job.
6. Never hammer with the side of the hammer. Always use the face of the head.

K. SLEDGEHAMMERS

1. Always inspect sledgehammers carefully before each use and replace any defective tools.

2. Safety glasses with side shields or goggles shall be worn when using a sledgehammer.

3. When the face of the heads start to mushroom, properly dress head and face back to original shape or replace the head with a new head.

L. PORTABLE ELECTRIC TOOLS

1. The non-current carrying metal parts of portable electric tools such as drills, saws, and grinders shall be effectively grounded when connected to a power source unless:

2. The tool is an approved double-insulated type.

3. The tool is connected to a power supply by means of an isolating transformer or other isolated power supply, such as a 24-Volt dc system.

4. All powered tools shall be examined prior to use to ensure general serviceability and the presence of all applicable safety devices. The electric cord and electric components shall be given an especially thorough examination.

5. Powered tools shall be used only within their capability and shall be operated in accordance with the instructions of the manufacturer.

6. All tools shall be kept in good repair and shall be disconnected from the power source while repairs are being made.

7. Electrical tools shall not be used where there is a hazard of flammable vapors, gases or dusts.

8. Ground fault circuit interrupters shall protect all power tools and cord sets.

M. PNEUMATIC TOOLS

1. Compressed air and compressed air tools shall be used with caution.

2. Pneumatic tools shall never be pointed at another person.

3. Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

4. Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

5. Compressed air shall not be used to blow dust or dirt from clothing.

6. The manufacturer's safe operating pressure for hoses, pipes, valves, filter, and other fittings shall not be exceeded.

7. The use of hoses for hoisting or lowering shall not be permitted.

8. All hoses exceeding ½ inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure or disengagement of a connection.

9. Before making adjustments or changing air tools turn off the pressure to the hose, unless equipped with quick-release pressure device.

N. MISCELLANEOUS TOOLS

1. Never use makeshift crowbars.

2. Never strike crowbars with case hardened tools.

3. Wear proper eye protection when using a crowbar.

4. Always rest soldering irons on metal racks or other suitable fire proof rests to prevent potential fires. Unplug irons when not in use. Keep cords and plug connections in good condition.

5. Never attempt to hold small objects. Use a proper vise. Make sure vise is secured to a solid object.

O. ROLES AND RESPONSIBILITIES

1. MANAGEMENT
   i. Ensure compliance in their functional areas with the policies and requirements directed by this procedure.
   ii. Ensure their personnel are trained and qualified to perform the task being assigned to them.
   iii. Ensure any defective tools are immediately removed from service.

2. Affected manager must perform checklist for hand tools at least quarterly.

3. EMPLOYEES
   i. Comply with the policies and requirements directed by this procedure.
   ii. Make sure they do not perform any task requiring formal training until the required training is completed and documented.
   iii. Refuse to operate any piece of equipment for which they are not familiar and/or not properly trained.
   iv. Ensure any defective tools are immediately removed from service.

P. SAFETY DEPARTMENT

1. Ensure implementation of this procedure and revisions to this procedure based on changes to referenced documents or a determination of deficiencies in work processes of procedures.

2. Develop programs and procedures that promote safety.

Q. DEFINITIONS

1. HAND TOOL - Any tool that is non-powered and designed to be used by hand.

2. TETHER - An approved lanyard of sufficient strength to restrain a tool if it is dropped and of sufficient length to allow operation of the tool but short enough to prevent the tool if dropped, from causing damage or injury.

Addendum L: Hazardous Waste Operations & Emergency Response (HAZWOPER) Program

Purpose and Scope

Terra Contracting is committed to providing a safe and healthy work environment and to protecting our employees from injury or death caused by uncontrolled hazards in the workplace. The purpose of Terra Contracting's HAZWOPER program is to establish work policies, practices and procedures that employees are to follow during an emergency response to a hazardous substance release/spill and during post-

emergency operations. In this program, hazardous substance is defined as a substance in solid, liquid or gaseous form that can harm humans, other living organisms or the environment. It will cover all areas where employees may be exposed to substances that can result in adverse health and safety effects (e.g., ammonia, Freon, gasoline, diesel fuel, battery acid and water treatment chemicals). Engineering controls and safe work practices be utilized to reduce or maintain employee exposures below the permissible exposure limit (PEL) established by OSHA.

Program Responsibilities

Program Administrator. The Program Administrator is responsible for directing all hazardous waste site operations, the HAZWOPER program implementation, management and recordkeeping requirements.

Incident Commander. The Incident Commander is responsible for managing emergency activities at a hazardous release site and directs the activities through a chain of command to those responsible for carrying out a specific emergency response tasks. The Incident Commander will also:

- Identify hazardous substances at the site
- Enforce the incident command system procedures
- Ensure those responding wear appropriate PPE
- Keep others away from the site
- Commence appropriate decontamination procedures after the emergency

Employee Training

Employees must be trained in hazardous waste operations and emergency response (HAZWOPER) prior to engaging in work on sites where they could be exposed to hazardous substances, safety or health hazards. Employees shall be re-trained any time the employee's responsibilities under the plan change or whenever the plan itself changes. Terra Contracting shall train employees as to their duties in the event of an emergency.

Personnel who are needed temporarily to perform immediate emergency support work, are not required to be HAZWOPER trained. However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. All other appropriate safety and health precautions provided to other responders shall be used to assure the safety and health of these personnel.

The initial briefing shall include the following as set forth in 29 CFR 1910.120(q)(4):
1. Instruction in the wearing of appropriate personal protective equipment,
2. What chemical hazards are involved,
3. What duties to be performed

First Responder Operations Level Training. Supervisors and anyone at Terra Contracting who responds to the release of a hazardous substance or contains the release but is not involved in stopping the release, is required to receive on-site First Responder Operations Level training. The training includes all the topics covered in the First Responder Awareness Level training and the proper procedures for these selected employees to take if they witness, discover or otherwise become aware of a release of hazardous substances.

Incident Commander. Any emergency responder expected to perform as an Incident Commander should be trained to fulfill the obligations of the position. Incident Commander training will include all the topics covered in First Responder Awareness, First Responder Operations level training and training on:

- Analyzing a hazardous substance to determine the magnitude of the release
- Planning and implementing an appropriate response
- Evaluating the progress of the emergency response

Lines of Communication

In the event an employee (First Responder Awareness Level) witnesses or discovers a release of a hazardous substance, he/she will:

1. Notify Terra Contracting's Incident Commander of the release and/or call 911 if necessary.
2. Follow instructions from the Incident Commander and/or supervisors.

In the event a supervisor (First Responder Operations Level) discovers or otherwise becomes aware of a release of a hazardous substance, he/she will:

1. Notify Terra Contracting's Incident Commander of the release and/or call 911 if necessary.
2. Communicate spill to employees and facilitate evacuation/relocation procedures.
3. Assist the Incident Commander as necessary.
4. Wait for emergency response.

In the event of an emergency situation, the Incident Commander will:

1. If necessary, call 911 and notify the proper authorities of the release of the material.
2. Notify all supervisors of release and instruct them to evacuate/relocate.
3. Evacuate the immediate area and keep others from entering the area.
4. Identify materials from shipping or container labels (if possible without entering the area).
5. Identify proper PPE from the safety data sheets or labels.
6. Determine if spill response measures can be done safely with available PPE.
7. If the release can be safely contained, obtain proper material such as absorbent materials from spill response kits found in Operations Department.
8. Obtain and put on needed PPE.
9. Apply absorbent material or other containment measures on and around the spill or release.
10. Keep other employees out of the release area.
11. Wait for emergency response.

Site Safety and Control

All chemicals shall be properly stored to reduce the likelihood of a spill. Spill kits shall be readily available. Employees shall report spills to direct supervisor immediately.

If the spill/release requires a full evacuation of the building, First Responders Operations Level employees will ensure no unauthorized person enters the building and wait for emergency response to arrive and secure the site.

If the spill/release does not require a full evacuation, the Incident Commander will block off the spill or release area and make sure all other employees are a safe distance away.

Medical Surveillance

Terra Contracting has a medical surveillance program for all employees whose role may expose them to hazardous substances at or above the permissible exposure limits (PEL) or, if there is no PEL, above the published exposure levels for more than 30 days per year.

All employees whose job includes First Responder Operations Level duties or Incident Commander duties will be medically examined before assignment, immediately after reporting symptoms of possible overexposure and at termination or reassignment from the First Responder Operations Level or Incident Commander duties. Additionally, all employees who are or may be exposed to a hazardous substance or who are required to wear a respirator for 30 days or more a year are covered under Terra Contracting's medical surveillance program.

All medical surveillance examinations are performed by licensed physicians, without cost to the employee and at a reasonable time and place. Examinations will include a medical and work history. Special emphasis will be placed on symptoms of exposure to hazardous substances and health hazards on the job and to fitness for duty, including the ability to wear PPE during their First Responder Operations Level or Incident Commander role.

Terra Contracting will obtain a written opinion from the physician that contains the results of the medical examination, any detected medical conditions that could place the employee at an increased risk of exposure, and any recommended limitations. The employee will receive a copy of the physician's written findings. The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to the possible occupational exposure. These medical opinions and other related information will be kept in the employee's HR confidential personnel file.

All exposure records, medical examination records, and written opinions will be maintained for the duration of employment plus 30 years. Each First Responder Operations Level employee and Incident Commander will be notified in writing that their medical surveillance records are maintained in the Human Resources department and are available during regular business hours.

Post-Emergency Response Operations (Decontamination)

Terra Contracting maintenance employees will perform spill clean-up operations if the amount of material released is at an incidental level. If the release is of an amount beyond incidental, Terra Contracting will contact H2O Environmental for clean-up services.

H2O Environmental
4435 E Colton Ave Unit 101
Las Vegas, NV 89115
800-645-8265
xyzcleanup@gmail.com

H2O Environmental is responsible for both clean-up and decontamination of all areas affected and all PPE used during the incident. Employees leaving contaminated area shall be appropriately decontaminated.

Addendum M: Hot Work Welding Program

Purpose and Scope

Terra Contracting is committed to providing a safe and healthy work environment and to protecting our employees from injury or death caused by uncontrolled hazards in the workplace. Terra Contracting recognizes the potential for fire from hot work operations. The Hot Work Program has been established to

help protect the safety of Terra Contracting's employees and property by establishing appropriate hot work procedures and designated areas for hot work operations.

This program applies to all employees (permanent, temporary and contractors) who complete hot work or work in areas where hot work is taking place. All employees are required to follow the procedures outlined in this program. Any deviations from this program must be immediately brought to the attention of the Program Administrator.

Program Responsibilities

Management. The management of Terra Contracting is committed to the overall safety of its workers and facilities. Management supports the efforts of the Program Administrator by pledging leadership support and financial resources for this program and ensuring the program is being followed.

Program Administrator. The Program Administrator reports directly to upper management and is responsible for developing and implementing the Hot Work Program. The Program Administrator/Operations Manager is responsible for:

- Developing safe usage protocols for all heat, flame and spark-producing equipment
- Providing appropriate training to all employees of Terra Contracting that perform or authorize hot work activities
- Identifying the proper personal protective equipment (PPE) needed during the hot work procedures
- Reviewing program at least annually, and when changes are needed or new equipment is added

Supervisors. Supervisors are responsible for:

- Ensuring that only qualified and trained authorized employees perform hot work activities
- Ensuring that employees who are found to have insufficient skills or understanding of hot work procedures do not perform hot work activities and receive retraining before conducting any hot work procedures
- Ensuring employees comply with all procedures described in this program
- Completing air monitoring in the event a potentially explosive atmosphere is identified
- Designating a fire watch employee for all hot work performed in a non-designated area during and for no less than 30 minutes after work is completed
- Conducting final inspections after a fire watch period has concluded
- Inspecting designated hot work areas after each shift to ensure no smoldering materials are present
- Providing information to the Program Administrator regarding needed improvements to this program
- Determining if the work can be completed or moved to a designated hot work area
- If the work cannot be moved, ensuring all combustible materials in the vicinity are removed
- If all combustible materials cannot be removed, ensuring that guards are in place to confine the heat, sparks and slag.
- Determining if welding and cutting cannot be performed safely, ensuring employees are prohibited from performing hot work.
- Inspecting hot work areas and reviewing planned safety precautions before hot work operations begin

- Communicating to employees regarding hot work activities to ensure their safety
- Establishing a fire watch during and for no less than 30 minutes after completion of the hot work
- Ensuring all employees left in charge of oxygen or fuel-gas supplies must be instructed and deemed competent by the company for such work.

Authorized Personnel. Authorized personnel includes employees or contractors who are trained to perform hot work activities including soldering, welding, pipe-cutting, heat-treating, grinding, thawing pipes, hot riveting, torch-applied roofing and any other application involving heat, sparks or flames. Duties of authorized personnel include:

- Completing all required hot work training
- Performing hot work activities and procedures in accordance with this program
- Inspecting designated hot work areas for combustibles and other hazards prior to beginning hot work
- Inspecting hot work equipment to ensure it is in safe operating condition before beginning work
- Retaining control of the equipment while hot work is in progress

Fire Watch Personnel. Fire watch is not required when the hot work area has no fire hazards or combustible exposures. However, a final check is required 30 minutes after completion of operation to detect and extinguish smoldering fires. A fire watch is a designated trained employee who monitors the hot work area for fires while work is being performed and for 30 minutes after its completion. Duties of the fire watch personnel include:

- Maintaining continuous watch over hot work activity during and for 30 minutes after work has been completed
- Monitoring adjacent areas for fires
- Have fire extinguishers readily available
- Extinguishing small, controllable fires with extinguishing equipment
- Activating fire alarm if an uncontrollable fire occurs
- After the hot work and mandatory 30 minute monitoring period is complete, periodically returning to the area where the hot work was completed to check for fires for three hours
- Ensuring that the supervisor has conducted a final inspection after the fire watch period has concluded
- Having a supervisor find another trained person to relieve him/her if the designated individual must leave for any reason

Other Personnel. This includes employees or contractors who are neither authorized personnel nor fire watch personnel but are still exposed to areas where hot work is performed. Other personnel should not perform any hot work activities. Duties include wearing proper personal protective equipment when in a 35 foot radius of hot work.

Authorized personnel must be certain that a functioning fire extinguisher appropriate for the type of potential fire is present at all times while hot work is being performed. At the end of each shift, a supervisor on duty must inspect each designated hot work area to ensure no smoldering materials are present and all hot work equipment is properly shut off and stored.

Basic Precautions. At a minimum all of the following precautions must be met to perform hot work:

- Building fire sprinkler system is operational at the hot work location. (if applicable)
- All combustible materials within 35 feet of the hot work shall be moved to a safe distance or other location.
- If combustible materials cannot be moved, they are protected by fire retardant covers or they are shielded with fire retardant or metal guards.
- Appropriate PPE is provided to employees performing hot work based upon a hazard assessment.
- A fire watch is initiated during and for 30 minutes after all hot work has stopped.
- First aid supplies are readily available at all times

Special Precautions. Where any of the following conditions exist additional precautions shall also be taken above the basic precautions. The final protection measures will be determined by the hot work approver prior to beginning work.

Floor Openings/Coverings – The floors shall be protected from exposure to flames, sparks, slag or other hot materials whenever there are combustible floors or materials on the floor, floor openings or cracks in the floors. Protections may include:

- Fire-resistant shields or material
- Wetting down floors
- Covering floors with damp sand
- Sweeping combustibles from floor
- Additional protections deemed necessary by the hot work approver

Wall Openings –The walls shall be protected from exposure to flames, sparks, slag or other hot materials whenever there are combustible walls, wall openings, pipe penetrations or ducts. Protections may include:

- Fire-resistant shields or materials
- Shutting dampers
- Separate fire watch on the other side of the walls
- Additional protections deemed necessary by the hot work approver

Potentially Explosive Atmospheres – If there is a potential for mixtures of flammable gases, vapors, liquids or dust in the air, **no hot work will be conducted** until the Program Administer has completed a review and air monitoring has confirmed that there is no danger of an explosion.

Containers – No hot work will be performed on used drums, barrels, tanks or other container until they have been cleaned thoroughly. The hot work approver must determine that no flammable materials and no substance such as greases, tars, acids or other material which might produce flammable or toxic vapors if exposed to heat are present.

Confined Space Hot Work- On those occasions where hot work must be conducted in confined spaces, all entries and work shall be conducted in accordance with Terra Contracting Inc.'s Confined Space Safety Program. In addition to Confined Space Procedure, the following shall apply:

Ventilation of Confined Spaces - Ventilation is a prerequisite to hot work in confined spaces. The following ventilation requirements and safety precautions shall apply to all confined space hot work operations.

- Air Replacement - All welding, cutting and hot work operations conducted in confined spaces shall be adequately ventilated with clean and breathable air to prevent the accumulation of toxic materials or oxygen deficiency.
- Airline Respirators - In circumstances for which it is impossible to provide such ventilation, airline respirators or hose masks approved for this purpose by the National Institute for Occupational Safety and Health (NIOSH) under 42 CFR part 84 must be used.
- Self-contained Units - In areas immediately hazardous to life, a full-face piece, pressure-demand, self-contained breathing apparatus or similar SCBA approved by NIOSH under 42 CFR part 84 must be used.
- Hole Watch or Outside Assistant - Where welding, cutting or hot work operations are carried on in confined spaces and where welders and helpers are provided with hose masks, or similar SCBA, a worker shall be stationed on the outside of such confined spaces to insure the safety of those working within.
- Oxygen for ventilation - Oxygen shall never be used for ventilation

Cylinders and Machinery - When welding or cutting is being performed in any confined spaces, the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement

Attendants & Lifelines - Where a welder must enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him/her in case of emergency. When safety belts and lifelines are used for this purpose, they shall be so attached to the welder's body that his body cannot be jammed in a small exit opening. An attendant with a preplanned rescue procedure shall be stationed outside to observe the welder and can put rescue operations into effect

Electrode Removal - When arc welding is to be suspended for any substantial period, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur, and the machine disconnected from the power source.

Gas Cylinder Shutoff - To eliminate the possibility of gas escaping through

leaks of improperly closed valves, the torch valves shall be closed and the fuel-gas and oxygen supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period. Where practical, the torch and hose shall also be removed from the confined space.

Warning Sign - After welding or hot work operations are completed, the welder or worker shall mark the hot metal or provide some other means of warning other workers

Arc Welding & Cutting

General Requirements

- Trained & Qualified - Employees performing arc-welding and cutting operations shall be trained and qualified in the proper and safe operation of such equipment.
- Equipment Selection - Welding equipment shall be selected by a qualified individual.
- Installation - Welding equipment shall be installed by a qualified individual.
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Equipment Requirements

Arc-welding equipment shall be specifically designed for the purpose intended and complying NEMA standards and shall be UL approved.

Special conditions - Unusual service conditions may exist, and in such circumstances, machines shall be especially designed to safely meet the requirements of the service. Exposure to any of the following conditions may require special equipment:

- Unusually corrosive fumes
- Steam or excessive humidity
- Excessive oil vapor
- Flammable gases
- Abnormal vibration or shock
- Excessive dust
- Extreme weather
- Salt laden atmospheres

Voltage - The following limits shall not be exceeded.

Alternating-current machines

- Automatic (machine or mechanized) arc welding and cutting - 100 volts.
- Manual arc welding and cutting - 80 volts.

Direct-current machines

- Automatic (machine or mechanized) arc welding and cutting - 100 volts.
- Manual arc welding and cutting - 100 volts.
- When special welding and cutting processes require values of open circuit voltages higher than the above, means shall be provided to prevent the operator from making accidental contact with the high voltage by adequate insulation or other means.
- For AC welding under wet conditions or warm surroundings, where perspiration is a factor, the use of reliable automatic controls for reducing no load voltage is recommended to reduce the shock hazard.

Grounding.

- Welding machines shall be grounded.
- Conduit and piping systems shall not be used as a permanent part of a work-lead circuit.
- Chains, wire ropes, cranes, and hoists cables, etc., shall not be used to carry welding current.
- Ground connections shall be checked for tight, secure connection before each use.

Operation and Maintenance

- Training - Employees assigned to operate or maintain arc-welding equipment shall be trained in the operation and maintenance of such arc-welding equipment. In addition, if gas-shielded arc welding methods are being used, these individuals shall be trained in Recommended Safe Practices for Gas-Shielded Arc Welding.
- Hook-up - Before starting operations, all connections to the machine shall be checked.
- Grounding - Grounding of the welding machine frame shall be checked. Special attention shall be given to safety ground connections of portable machines.
- Leaks – Check for equipment leaks, there shall be no leaks of cooling water, shielding gas or engine fuel.
- Switching – A means of shutting down equipment must be provided and functional.
- Electrode holders - Electrode holders, when not in use, shall be protected from making electrical contact with persons, conducting objects, fuel, or compressed gas tanks.
- Electric shock - Cables with splices within 10 feet of the holder shall not be used.
- Wrapping Leads - The welder must never coil or loop cables around parts of his body.
- Defects - Report any equipment defect or safety hazard to the supervisor. Tag-out equipment until its safety has been assured. Qualified personnel only can make repairs.
- Wet Equipment - Machines which have become wet shall be thoroughly dried and tested before being used.
- Cable Damage - Cables with damaged insulation or exposed bare conductors shall not be used. Qualified personnel only can make repairs. Joining lengths of cables shall be done using connecting means specifically intended for the purpose and conditions.

Protection of Personnel

PPE. All personnel conducting hot work or assisting with hot work must wear the appropriate personal protective equipment. The appropriate protection is determined by the Personal Protective Equipment Program survey and outlined in the PPE Program document. Do not begin any hot work operations without obtaining and wearing the required protection.

Welding, cutting, heating and brazing. The following PPE must be worn when completing this type of hot work.

- **Eye and face protection**
  - Helmet with filter lens and cover plate that complies with ANSI Z87.1
  - Safety glasses with side shield under helmet

- **Head and ear protection**
  - Fire-resistant welder's cap under helmet
  - Approved ear-plugs or muffs
- **Foot Protection**
  - Leather, steel-toed, high-topped boots in good condition and that meet the requirements of ASTM F2412 and ASTM F2413
  - Do not wear pants with cuffs. The bottoms of pants should be worn over the tops of the boots
- **Hand Protection**
  - Dry, hole-free, insulated and flame-resistant welding gloves
- **Body Protection**
  - Oil-free protective clothing made of wool or heavy cotton
  - Clothing should allow for freedom of movement and should prevent skin exposure
  - Leather aprons, leggings, capes and sleeves as needed

Equipment. All tools and equipment used to perform hot work operations will be inspected prior to use. No person should use any tool or equipment unless trained. All safety precautions as outlined in the Welding and Cutting Safety Program will be followed at all times.

Company employees assigned to maintain or operate equipment must be familiar with the requirements of 29 CFR 1910.254 and 29 CFR 1910.252(a-c)

Industrial Hygiene

Contamination – The following factors determine hot work and welding contaminate exposure hazards:

- Dimensions of workspace, especially ceiling height.
- Number of work points or welders in space.
- Possible evolution of hazardous fumes, gases or dust resulting from metals involved.

Hazardous Fumes and Gases – Ventilation and/or respiratory protection may be required for hazards resulting from hot work operations on metals containing or coated with compounds containing the following:

- Fluorine compounds
- Zinc
- Lead
- Beryllium
- Cadmium
- Mercury
- Certain cleaning compounds
- If any of the above elements or compounds are identified with hot work materials, please contact a competent individual for direction/instructions regarding appropriate hazard control measures.

Precautionary labels - Several potentially hazardous materials are present in fluxes, coatings, coverings, and filler metals used in welding and cutting or are released to the atmosphere during welding and cutting. The suppliers of welding materials shall determine the hazard, if any, associated with the use of their materi-

als in welding, cutting, etc. Safety Data Sheets also contain certain precautionary and hazard information helpful in determining the appropriate protective measures to be exercised.

All filler metals and fusible granular materials shall carry the following notice, as a minimum, on tags, boxes, or other containers:

CAUTION- Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. Use adequate ventilation.

Cylinders

Approval and marking

- All portable cylinders used for the storage and shipment of compressed gases shall be in accordance with DOT regulations.
- Compressed gas cylinders shall be legibly marked identifying the gas contained.
- Only compressed gas cylinders equipped with American National Standard compressed gas cylinder valve outlet and inlet connections shall be used.
- Cylinders should be marked as "MT" and dated when empty. Never mix gases in a cylinder and only professionals should refill cylinders. Empty cylinders must be handled as carefully as full cylinders.

Storage of cylinders-general

- Cylinders shall be kept away from radiators and other sources of heat.
- Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet from highly combustible materials such as oil or excelsior. Cylinders should be stored in assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

- Empty cylinders shall have their valves closed.
- Valve protection caps, where cylinders are designed to accept a cap, shall always be in place, hand-tight, except when cylinders are in use or connected for use.
- If a cylinder cap cannot be removed by hand, the cylinder shall be tagged “Do Not Use” and returned to the vendor.
- Storage areas for full and empty cylinders must be designated and labeled. Cylinders should be stored in assigned places away from elevators, stairs, or gangways.
- Cylinders must be transported in a vertical secured position using a cylinder basket or cart and must not be rolled. Regulators should be removed, and cylinders capped before movement. Cylinders should not be dropped or permitted to strike violently, and protective caps are not used to lift cylinders.
- Hoses and connections should be inspected regularly for damage. Hoses should be stored in cool areas and protected from damage.
- Oxygen cylinders must be stored in an upright position at least twenty feet from any flammable gases or petroleum products.

Periodic Program Review

All hot work procedures will be reviewed at least annually by an authorized employee who does not regularly work with the hot work procedure or by the Program Administrator. If any inadequacies are identified, the Program Administrator will update the procedures and program.

Record Retention

Written training records, which include trainee names, the type of training provided and the dates when training occurred, will be kept by the Human Resources/Safety Department.

Addendum N: Ladder Safety

1. COMPLIANCE: All stairways and ladders will be in compliance with requirements of OSHA and ANSI including the following:
    i. Self-supporting and non-self-supporting portable ladders will be rated to support 4 times the maximum intended load.

ii. Two or more ladders or a double-cleated ladder will be provided for access to or egress from a structure on which more than 25 people are working.
iii. Ladder rungs and cleats will be parallel, level, and spaced uniformly. The rungs will be uniformly set at an interval between 10 and 14 inches.
iv. The minimum distance between the 2 side rails of a fixed ladder and individual rung step-ladders will be 16 inches.
v. The rungs of portable and fixed metal ladders will be corrugated, knurled, dimpled, or coated with skid-resistant material.
vi. Ladders will not be tied or fastened together vertically unless they are specifically designed for that purpose.
vii. If two or more separate fixed ladders are used to reach an elevated work area, they will be offset and include a platform, guardrails, overhead protection, and toe boards.
viii. Permanently attached ladders will have a back clearance of 7 inches or more.
ix. There will be at least a 30-inch clearance at the base of the climbing side of a ladder.
x. Extension ladders used shall be placed against top support at a 4:1 slope.

2. USE REQUIREMENTS FOR LADDERS:
   i. A worker who ascends or descends a ladder will face the ladder and not hand-carry objects or loads that could affect stability.
   ii. All points of access to ladders will be clear of construction materials.
   iii. If used in an area where it can be displaced by activity or traffic, a ladder will be secured to prevent its accidental displacement.
   iv. All ladders will be periodically inspected for defects (for example, broken or missing rungs) by a competent person. If a ladder has been damaged in any way, it will be thoroughly inspected; if any defects are found, the ladder will be tagged "DO NOT USE" and removed from service. Do not paint wooden ladders, as painting will hide defects.
      i. After any event that has the possibility to make the ladder unsafe for use, ladder will be inspected for safety before continued use.
   v. Portable ladders used to reach an upper landing of a structure will have side rails that extend at least 3 feet above the landing.
   vi. Ladders will be free of oil, grease, and other hazards that may cause a worker to slip.
   vii. Ladders will be used only for the purpose for which they were designed. Ladder bases will have slip-resistant feet (unless secured) and be used on a surface that is stable and level.
   viii. Ladders will not be moved, shifted, or extended when workers are on them.
   ix. Ladders that may come in contact with exposed energized electrical equipment will have nonconductive side rails.
   x. Single-rail ladders will not be used.
   xi. Stepladders should only be used fully unfolded, and workers will not stand above the second from the top step.
   xii. Wooden ladders will not be painted so as to obscure a defect in the wood; only a clear, nonconductive finish will be used.
   xiii. Ladders will be sufficiently strong enough for their intended use.
   xiv. Portable metal ladders will not be used in the vicinity of energized electrical circuits.
   xv. Ladders shall not be placed in front of a door that opens toward the ladder, unless the door is open, locked, or guarded.
   xvi. Only one employee will work from a ladder at one time (except for hook type ladders.) If two employees are required, a second ladder will be used.
   xvii. When ascending or descending ladders, employees will have both hands free and shall face the ladder.
   xviii. Ladders will not be used as scaffold platforms.
   xix. Boxes, chairs, etc., will not be used as ladders.
   xx. Employees will not use a ladder until they have been properly trained in its use.

xxi. Load limits for each ladder shall not be exceeded and used for the purposes in which they were designed.

3. STRAIGHT LADDERS:
   i. Portable straight ladders will not be used without nonskid bases.
   ii. The ladder will be placed so that the distance between the bottom of the ladder and the supporting point is approximately one-fourth of the ladder length between supports.
   iii. Straight ladders will not be climbed beyond the third step from the top.
   iv. When working from a portable ladder, the ladder must be securely placed, held, tied, or otherwise made secure to prevent slipping or falling.
   v. When dismounting from a ladder at an elevated position (as at a roof) the employee shall ensure that the ladder side rails extend at least 3 feet above the dismount position, or that grab bars are present.
   vi. Ladders will not be spliced together to form a longer ladder.
   vii. A ladder will not be placed against an unsafe support.

Addendum O: Lead Awareness Program

OBJECTIVE:

Establishing proper safety procedures where potential hazardous exposure to lead & materials containing lead may exist.

SAFETY PRECAUTIONS:

As Terra Contracting Inc. scope of work does not include lead abatement processes, before any work is to be performed on material containing lead, or there is a reason to believe a material contains lead, the employee shall notify their supervisor. Employees are not to dislocate material that contains lead.

Management shall ensure compliance and safety of employees before work is to commence.

Work cannot continue until testing/treatment has been completed to confirm the safety of the jobsite. This includes use of outside lead abatement remediation or removal.

Examples of potential lead containing material are:

4. Lead paints
5. Leaded solders
6. Pipes
7. Batteries
8. Circuit boards
9. Cathode tubes

Employees in contact with lead are to wash their hands and face thoroughly to avoid further exposure risks.

Training Requirements

Training shall be performed for company employees who are not involved in lead abatement or removal operations but have the potential to be exposed to lead in the performance of their job. This training shall be at initial hire and included in a yearly refresher.

This training should incorporate the following elements:

4. Medical aspects concerning lead.
    a. Risk of exposure due to inhalation and ingestion of lead.
    b. Chronic overexposure of lead can cause anemia, nervous system damage, kidney disease, and reproductive impairment
    c. Importance of thorough washing after contact with lead.

5. How to identify materials containing lead.

Addendum P: Personal Protective Equipment

This is **Terra Contracting Inc.** Personal Protective Equipment Program. It meets all OSHA requirements and applies to all our work operations. **Terra Contracting Inc.** will be responsible for overall direction of the Safety Program.

A. INTRODUCTION

1. This program implements 29 CFR 1926.95, the OSHA standard on personal protective equipment. It has been adopted to protect employees from workplace hazards through use of personal protective equipment.

2. In general, the safety of workers depends upon a thorough knowledge of their operations and the hazards posed. A written personal protection program is designed with these objectives:
    i. To provide a reference document for any employee with questions concerning the proper application of PPE, and how our company is complying with the relevant OSHA regulation.
    ii. To provide managers and employees with clear guidance on their responsibilities in the overall PPE Program.
    iii. Personal protective equipment includes all clothing and other work accessories designed to create a barrier against workplace hazards. The basic element of any program for personal protective equipment should be an in-depth evaluation of the equipment needed to protect against the hazards of the workplace. Management dedicated to the safety and health of employees should use that evaluation to set a standard operating procedure for personnel and then train employees on the protective limitations of personal protective equipment, and on its proper use and maintenance.
    iv. Using personal protective equipment requires hazard awareness and training on the part of the user. Employees must be aware that the equipment does not eliminate the hazard. If the equipment fails, exposure will occur. To reduce the possibility of failure, equipment must be properly fitted and maintained in a clean and serviceable condition.
    v. Selection of the proper personal protective equipment for a job is important. Employers and employees must understand the equipment's purpose and its limitations. The equipment must not be altered or removed even though an employee may find it uncomfortable. (Sometimes equipment may be uncomfortable simply because it does not fit properly.)
3. This program covers many types of equipment most commonly used for protection of the head, including eyes and face, arms, hands, and feet. The use of equipment to protect against life threatening hazards also is discussed. Information on respiratory protective equipment may be found in 29 CFR 1910.134, the standard should be consulted for more information on specialized equipment.

B. GENERAL REQUIREMENTS

1. Protective equipment, including PPE for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers must be provided, used, and maintained in a sanitary and reliable condition. PPE must be provided whenever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants (i.e., flying chips or sparks, abrasive moving parts) encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation, or physical contact.

2. PPE shall be inspected before each use for any damages or defects. Any damaged PPE is to be removed from service immediately. All Protective equipment shall be of the right size and fit for the wearer, if applicable.

C. EQUIPMENT SELECTION

1. Survey for hazards, organize, and analyze the data then make proper selection of PPE based on the types of hazards. It will be the safety manager's responsibility to use common sense and fundamental techniques to accomplish these tasks. This process is somewhat subjective due to the variety of situations where PPE may be required.

D. TRAINING

1. The employer must train each employee who is required to use PPE. Each employee must know at least the following:
    i. When PPE is necessary.
    ii. What PPE is necessary.
    iii. How to properly wear and adjust PPE.
    iv. The limitations of PPE.
    v. The proper care, maintenance, useful life, and disposal of the PPE.
    vi. Damaged or defective PPE shall be taken out of service immediately and replaced.

2. Retraining is required when the employer has reason to believe that any employee who has been previously trained does not have the understanding or skill to use PPE properly, such as:
    i. Changes in the workplace render previous training obsolete.
    ii. Changes in the types of PPE to be used render previous training obsolete.
    iii. The employee has not retained the understanding or skill to use PPE properly.

E. EYE PROTECTION

1. The employer must verify in writing through a certification record that employee received and understood the training. The Record must contain:
    i. Name of each employee trained.
    ii. Date(s) of training.
    iii. Subject of the certification.

2. Employers must ensure that the proper eye and/or face protection is used when the employee is exposed to hazards from flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards should be taken.

3. Each employee will wear eye protection that provides side protection when there is a hazard from flying objects. Detachable (clip-on or slide-on) side shields are acceptable.

4. Employees who must wear prescription lenses while engaged in activities requiring use of protection must be provided with eye protection which has the prescription incorporated into it or protection that can be worn effectively over the prescription lenses. Wearers of contact lenses must wear appropriate eye and face protection devices in hazardous environments. Dusty or chemical environments may represent an additional hazard to contact lens wearers.

5. Each eye and face PPE must be marked to identify the manufacturer.

6. For protection against potentially injurious light radiation, employees must use equipment with filter lenses with the appropriate shade number for the work being done. Tinted and shaded lenses are not filter lenses unless marked or identified as such.

7. Some occupations (not a complete list) for which eye protection should be routinely considered are: carpenters, electricians, machinists, mechanics and repairers, millwrights, plumbers and pipe fitters, sheet metal workers and tinsmiths, assemblers, sanders, grinding machine operators, lathe and milling machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers.

8. Each eye, face, or face-and eye protector is designed for particular hazard. In selecting the protector, consideration should be given to the kind and degree of hazard, and the protector should be selected on that basis. Where a choice of protectors is given, and the degree of protection required is not an important issue, worker comfort may be a deciding factor.

9. Persons using corrective spectacles and those who are required by OSHA to wear eye protection must wear face shields, goggles, or spectacles of one of the following types:
    i. Spectacles with protective lenses providing optical correction;
    ii. Goggles worn over corrective spectacles without disturbing the adjustment of the spectacles; or
    iii. Goggles that incorporate corrective lenses mounted behind the protective lenses.

10. When limitations or precautions are indicated by the manufacturer, they should be transmitted to the user and strictly observed. Over the years, many types and styles of eye and face-and-eye protective equipment have been developed to meet the demands for protection against a variety of hazards.

11. Fitting of goggles and safety spectacles should be done by someone skilled in the procedure. Prescription safety spectacles should be fitted only by qualified optical personnel.

F. INSPECTION AND MAINTENANCE FOR EYE PROTECTION

1. It is essential that the lenses of eye protectors be kept clean. Continuous vision through dirty lenses can cause eye strain which is often an excuse for not wearing the eye protectors. Daily inspection and cleaning of the eye protector with soap and hot water, or with a cleaning solution and tissue, is recommended.

2. Pitted lenses, like dirty lenses, can be a source of reduced vision. They should be replaced. Deep scratches or excessively pitted lenses are apt to break more readily.

3. Goggles should be kept in a case when not in use. Spectacles, in particular, should be given the same care as one's own glasses, since the frame, nose pads, and temples can be damaged by rough usage.

4. Personal protective equipment that has been previously used should be disinfected before being issued to another employee.

5. When each employee is assigned protective equipment for extended periods, it is recommended that such equipment be cleaned and disinfected regularly.

6. The dry parts or items should be placed in a clean, dust-proof container, such as a box, bag, or plastic envelope, to protect them until reissue.

G. HEAD PROTECTION

1. Each affected employee must wear a protective helmet (hard hat) when working in areas where there is a potential injury to the head from falling objects or over head hazards.

2. Where falling object hazards are present, helmets must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors. Some examples of occupations for which head protection should be routinely considered are: carpenters, electricians, linemen, mechanics and repairers, plumbers and pipe fitters, assemblers, packers, wrappers, sawyers, welders, laborers, freight handlers, timber cutting and logging, stock handlers, and warehouse laborers.

3. Head protection is required where there is a risk of injury from moving, falling or flying objects, or for work near high voltage equipment.

4. Hard hats are designed to protect from impact and penetration caused by objects hitting workers' heads, and from limited electrical shock or burns. The shell of the hat is designed to absorb some of the impact. The suspension, which consists of the headband and strapping, is even more critical for absorbing impact. It must be adjusted to fit the wearer and to keep the shell a minimum distance of one-and-one-fourth inches above the wearer's head.

5. Hard hats are tested to withstand the impact of an 8-pound weight dropped 5 feet which is about the same as a 2-pound hammer dropped 20 feet and landing on your head. They also must meet other requirements including weight, flammability and electrical insulation.

6. Materials used in helmets should be water-resistant and slow burning. Each helmet consists essentially of a shell and suspension. Ventilation is provided by a space between the headband and the shell. Each helmet should be accompanied by instructions explaining the proper method of adjusting and replacing the suspension and headband.

7. The wearer should be able to identify the type of helmet by looking inside the shell for the manufacturer, ANSI designation and class.

8. All head protection (helmets) is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge or potential electrical hazards are important.

9. Each type and class of head protectors is intended to provide protection against specific hazardous conditions. An understanding of these conditions will help in selecting the right hat for the particular situation.

10. Protective hats are made in the following types and classes:
    i. Type 1-helmets with full brim, not less than 1 and 1/4 inches wide; and Type I hard hats are intended to reduce the force of impact resulting for a blow only to the top of the head. All hard hats, except bump caps, listed on the Cooper Safety website are Type I (top impact) hard hats.
    ii. Type II hard hats are intended to reduce the force of impact resulting from a blow which may be received off center or to the top of the head. A Type II hard hat typically is lined on the inside with thick high density foam.

11. Be sure to issue and wear the correct hard hat for the job. Hard hats come in three classes:
    i. Class G hard hats or helmets in addition to impact and penetration resistance are made from insulating material to protect from falling objects and electric shock by voltages of up to 2,200 volts. Class G hats are used in general service work and for limited voltage protection. They are used in mining, construction, shipbuilding, tunneling, lumbering, and manufacturing.
    ii. Class E hard hats or helmets in addition to impact and penetration resistance are made from insulating material to protect from falling objects and electric shock by voltages up to 20,000 volts. Class E hats are used in utility service work and provide protection against high voltage. They are used extensively by electrical workers.
    iii. Class C hard hats or helmets provide impact and penetration resistance. They are designed to protect workers from falling objects, but are not designed for use around live electrical wires or where corrosive substances are present. The safety hat or cap in Class C is designed specifically for lightweight comfort and impact protection. This class is usually manufactured from aluminum and offers no dielectric protection. Class C helmets are used in certain construction and manufacturing occupations, oil fields, refineries, and chemical plants where there is no danger from electrical hazards or corrosion. They also are used on occasions where there is a possibility of bumping the head against a fixed object.

12. Headbands are adjustable in 1/8 size increments. When the headband is adjusted to the right size, it provides sufficient clearance between the shell and the headband. The removable or replaceable type sweatband should cover at least the forehead portion of the headband. The shell should be of one-piece seamless construction and designed to resist the impact of a blow from falling material. The internal cradle of the headband and sweatband forms the suspension. Any part that comes into contact with the wearer's head must not be irritating to normal skin.

H. INSPECTION AND MAINTENANCE FOR HEAD PROTECTION

1. Manufacturer recommendations shall be consulted with regard to paint or cleaning materials for their helmets because some paints and thinners may damage the shell and reduce protection by physically weakening it or negating electrical resistance.

2. A common method of cleaning shells is dipping them in hot water containing a good detergent for at least a minute. Shells should then be scrubbed and rinsed in a clear hot water. After rinsing, the shell should be carefully inspected for any signs of damage.

3. All components, shells, suspensions, headbands, sweatbands, and any accessories should be visually inspected daily for signs of dents, cracks, penetration, or any other damage that might reduce the degree of safety originally provided.

4. Helmets should not be stored or carried on the rear window shelf of an automobile, since sunlight and extreme heat may adversely affect the degree of protection.

I. FOOT PROTECTION

1. Safety shoes or boots will provide employees both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection.

2. Safety footwear is required for employees who regularly handle solid objects weighing 15 pounds or more which can fall on their toes. For protection of feet and legs from falling or rolling objects, sharp objects, molten metal, hot surfaces, and wet slippery surfaces, workers should use appropriate foot guards, safety shoes or boots and leggings.

3. Aluminum alloy, fiberglass, or galvanized steel foot guards can be worn over usual work shoes, although they may present the possibility of catching on something and causing workers to trip. Heat-resistant soled shoes protect against hot surfaces like those found in the roofing, paving, and hot metal industries.

4. Safety shoes should be sturdy and have an impact-resistant toe. In some shoes, metal insoles protect against puncture wounds. Additional protection, such as metatarsal guards, may be found in some types of footwear. Safety shoes come in a variety of styles and materials, such as leather and rubber boots and oxfords.

5. Employees working around exposed electrical wires or connections, you'll need to wear metal-free non-conductive shoes or boots. Rubber or synthetic footwear is recommended when working around chemicals. Avoid wearing leather shoes or boots when working because these substances can eat through the leather right to your foot.

6. Safety shoes or boots with impact protection will be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet.

7. Safety shoes or boots with compression protection will be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet.

8. Safety shoes or boots with puncture protection will be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

9. Some occupations (not a complete list) for which foot protection should be routinely considered are: shipping and receiving clerks, stock clerks, carpenters, electricians, machinists, mechanics and repairers, plumbers and pipe fitters, structural metal workers, assemblers, drywall installers and lathers, packers, wrappers, craters, punch and stamping press operators, sawyers, welders, laborers, freight handlers, gardeners and groundskeepers, timber cutting and logging workers, stock handlers and warehouse laborers.

J. HAND PROTECTION

1. Hand protection is required for employees who are exposed to hazards such as those from cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. OSHA is unaware of any gloves that provide protection against all potential hand hazards, and commonly available glove ma-

terials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused.

2. It is also important to know the performance characteristics of gloves relative to the specific hazard anticipated; e.g., chemical hazards, cut hazards, flame hazards, etc. These performance characteristics should be assessed by using standard test procedures. Before purchasing gloves, be certain the gloves meet the appropriate test standard(s) for the hazard(s) anticipated.

3. Employers need to determine what hand protection their employees need. The work activities of the employees should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure to hazards and the physical stresses that will be applied.

4. Fingers, hands and arms are injured more often than any other parts of the body. Be especially careful to protect them by wearing the proper hand protection.

5. Gloves are the most common protectors for the hands. When working with chemicals, gloves should be taped at the top, or folded with a cuff to keep liquids from running inside your glove or on your arm.

6. Vinyl, rubber or neoprene gloves are sufficient when working with most chemicals. However, if you work with petroleum-based products, a synthetic glove will be needed.

7. Leather or cotton knitted gloves are appropriate for handling most abrasive materials. Gloves reinforced with metal staples offer greater protection from sharp objects.

8. It is dangerous to wear gloves while working on moving machinery. Moving parts can easily pull your glove, hand and arm into the machine. Do not wear metal-reinforced gloves when working with electrical equipment.

9. As long as the performance characteristics are acceptable, in certain circumstances, it may be more cost effective to regularly change cheaper gloves than to reuse more expensive types.

10. The work activities of the employee should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied. With respect to selection of gloves for protection against chemical hazards, the toxic properties of the chemical(s) must be determined. Generally, any “chemical resistant” glove can be used for dry powders.

K. RESPIRATORY PROTECTION

1. Terra Contracting Inc. has separate Respiratory Protection Program, and shall be referenced as necessary

L. EDUCATION AND TRAINING

1. Supervisors and employees are properly instructed by competent persons in the selection, use, and maintenance of PPE.

M. LIMITATIONS OF PPE

1. Terra Contracting, Inc acknowledges the limitations of PPE. It won't protect workers from everything. Employees must follow all the safety rules in the workplace and know how personal protective equipment fits into the company's safety program.

2. It is the employer's responsibility to teach workers what personal protective equipment is needed. However, it is the employee's responsibility to wear it. PPE must be used correctly to protect employees. Personal protective equipment can be effective only if the equipment is selected based on its intended use, employees are trained in its use, and the equipment is properly tested, maintained, and worn.

Addendum Q: Infectious Disease & Covid Protocol

Purpose:

1.1 This policy is designed to set forth standards and protocols for TERRA CONTRACTING essential construction projects in regards to pandemic conditions such as COVID-19.

1.2 This policy will be utilized for the protection of employees, sub-contractors, vendors and customers to any of our current essential construction projects.

Scope:

2.1 TERRA CONTRACTING Management and the Safety Department are monitoring all current information from local, State and Federal agencies such as the CDC, OSHA and local Health Departments.

2.2 Project protocols will follow all current recommendations and be continually updated as conditions and/or recommendations change.

Responsibilities:

3.1 TERRA CONTRACTING Safety Manger has overall responsibility for the implementation, communication, documentation, maintenance and review of this policy.

3.2 All field Superintendents/Project Managers/Foremen are responsible to implement and enforce all aspects of this policy, including workplace hazard assessment specific to pandemic purposes as necessary.

3.3 All field employees are required to strictly follow all aspects of this policy to include participating in ongoing field training.

3.4 TERRA CONTRACTING President shall (if necessary) have responsibility to develop business continuity plan to continue operations if significant numbers of employees are sick or in the case of governmental shelter-in-place order.

3.5 Management shall review the program yearly for effectiveness and continuously improve program and process including involving lessons learned following pandemic event.

Protection Measures:

4.1 The following are minimum standards that will be in place for each TERRA CONTRACTING project until further notice.

- All TERRA CONTRACTING employees and vendors are required to be checked in daily with the TERRA CONTRACTING representative (superintendent or designee).
- Any individual that appears to be unwell will NOT be granted access to the project site.
- Require sick workers/employees – and those displaying flu-like symptoms – to stay home. (“Worker/Employee” means worker or employee for TERRA CONTRACTING, our subcontractors, designers, consultants, etc.)
- Send employees home immediately who show signs and symptoms of flu-like or acute respiratory illness symptoms (see section 6).
- TERRA CONTRACTING employees are notified and updated to opportunities for immunization.

4.2 Onsite methods to maintain a healthy project include, but are not limited to the following:

- Minimize the number of employees working within a project or certain area of a project (6 ft of social distance to be maintained at all times).
- If provided, place one hand wash station at each construction entrance.
- If provided, restrooms shall be placed at least 6 ft. from each other.
- Ensure routine cleaning of frequently touched surfaces, including door handles, equipment, and tool handles.
- Increased cleaning of jobsite entrances (gates and doors), eating area, restrooms, common areas, equipment such as scissor lifts, ladders, forklift, etc.
- Handwashing facilities, antiseptic hand cleaning products or similar will be made available to all employees.
- No onsite meetings of more than 15 people.
- Meetings are encouraged to be call-in/video conference when feasible. Maintain social distancing of 6 ft.
- Request no carpools; it is preferred individuals commute alone.
- Encourage workers to take their break and lunch within their own vehicle, maintaining social distancing
- Discontinue onsite food trucks during this period.
- No physical greeting.

Monitor/Observe/Enforce

5.1 The Safety Specialist shall conduct site reviews to include taking photos to ensure all protocols are in place and being enforced.

5.2 Designate a TERRA CONTRACTING employee as the project Pandemic Coordinator (Safety Specialist, in conjunction with HR & Safety Manager) with the following duties:

- Conduct routine reviews of the project focusing on the pandemic protocols only.
- Assist with cleaning of items/site as necessary.
- Educate onsite workers on steps necessary for their protection.
- Take corrective action as necessary to include enforcement of TERRA CONTRACTING jobsite protocols.

5.2 If any employee, subcontractor, vendor, customer or any of their employees are observed not following these project safety measures they will be asked to leave the site immediately and proper notifications will be made.

5.3 Due to the inherent nature of work, employees may not be permitted to work from home depending on job description.

Wellness Check-In:

6.1 Each day the site foreman will conduct a wellness survey as part of the job hazard analysis.

6.2 Employees will be required to check their own temperature each and every day prior to coming to work.

- **Any temperature of 100.4 degrees Fahrenheit or higher is defined as a fever**

Disinfection and Recovery:

7.1 If we have a confirmed case of COVID 19, disinfect the areas used following CDC recommendations.

7.2 We will take a list of persons who have been in contact with the infected person within the last 2 days before illness onset, then notify those on the list of possible exposure and to follow CDC recommended self-monitoring.

Training:

8.1 Ongoing discussion regarding COVID-19 shall be part of our daily task analysis with weekly update memos and discussion including, but not limited to:

- What is COVID-19.
- How does COVID-19 spread.
- Signs/symptoms of COVID-19.
- Maintaining 6 feet minimum of social distancing.
- Stay self-aware of your area; do not move into another person's safe zone.
- Washing of hands regularly and thoroughly; use of hand sanitizer as needed.
- Wear proper PPE as needed.
- Use of proper hygiene etiquette such as covering our mouth with your arm or tissue; avoid touching your face/eyes/nose/mouth with unwashed hands.
- Do not share tools or other workspaces.
- Cleaning of surfaces as the day progresses.
- Proper use and the hazards of the cleaning/disinfection products to be used.
- Use of proper PPE when using cleaning/disinfection products.
- Have employees refer to the www.cdc.gov website for up to date information.
- Have employees refer to this website for OSHA information: www.osha.gov/covid-19/

8.3 Training to include updates from the CDC, local health department, OSHA and any other State or Federal agencies.

Addendum R: HEARING CONSERVATION PROGRAM

A. OBJECTIVES

1. It is the Commitment of **Terra Contracting Inc.** to provide a safe and healthy work environment for its employees.

2. Compliance of OSHA 1926.52 and 1910.95 for Occupational Noise Exposure.

3. Prevention, in so far as possible, through education and facilitating of employees obtaining proper hearing protection devices (HPD) at work and away from work, and hearing loss due to off time exposures to various noises.

B. POLICIES

1. All work environments which have enough background noise to require individuals in that area to speak louder than their normal conversational tone in order to be understood, shall be tested to determine if it meets or exceeds the action level or "permissible exposure level" (PEL).
    1. OSHA Action Level is an eight (8) hour time weighted average (TWA) of 85 dBA or its equivalent.
    2. Noise Sampling shall be completed each year by Safety Specialist.
2. If any employees' noise exposure exceeds the "permissible exposure level" (PEL) or "action level" during any work shift, the employee will be enrolled in a "Hearing Conservation Program" (HCP) and the employer will use all feasible engineering and administrative controls to reduce the employee's noise exposure to the PEL, so far as reasonable, considering the economic viability.
3. Audiometric testing will be offered to each employee enrolled in the HCP; however, employees are not required to take the test. The test will be provided at no cost to the employee.
4. It is a condition of employment that all employees wear hearing protective devices when working in an area at or above the action level.
5. It is company policy for all supervisors ensure that employees, vendors and contractors who do not wear appropriate hearing protection are immediately removed from any area that requires hearing protection.

C. PROCEDURES

1. THE SAFETY DEPARTMENT SHALL:
    i. Ensure that the noise exposure tests are conducted with the appropriate equipment and approved by the Safety department.
    ii. Ensure that the tester will perform the noise testing according to the manufacturer's specifications.
    iii. Inform the Safety Manager of the results in a timely manner.
    iv. Conduct an annual noise monitoring survey of work areas as required.
    v. Maintain records of all noise sampling done.

D. HEARING PROTECTION REQUIREMENTS FOR LEVEL OF NOISE EXPOSURE

1. Upon notification of test results, the Safety Manager, in conjunction with the department supervisor will establish the appropriate hearing protection:
    i. None – less than the OSHA action level.
    ii. Single Hearing Protection – at or above the OSHA action level of 85 dBA.
    iii. Double Hearing Protection – at or above 105 dBA or equivalent on an eight (8) hour TWA.
    iv. Over Permissible Exposure Level – at or above 115 dBA or equivalent – requires employees to be removed from the area immediately until engineering and/or administrative controls are implemented.
    v. After any engineering controls have been implemented, testing of the area will be conducted for evaluation of reduction in noise levels.

E. ENGINEERING CONTROLS

1. Engineering controls are procedures and processes, other than administrative or personal hearing protective devices (HPD), that reduce sound level, either at the sources or within the hearing zone of the workers.
2. **Terra Contracting Inc.** will identify, evaluate, develop, monitor and implement engineering controls to reduce noise levels that meet or exceed (PEL) 85 dBA TWA and/or 100 percent dose. Also, the maximum allowable exposure of 115 dBA.
3. DEPARTMENT SUPERVISORS SHALL:
    i. Ensure that all of their work areas have been evaluated for hearing protection requirements that exceed the over permissible level

(115 dBA) for engineering changes that will decrease the noise exposure.

ii. Implement remedial action for removal of employees until engineering controls are in place if noise level exceeds the over permissible exposure level (115 dBA).

iii. Ensure that re-testing has been conducted after implementation of engineering controls for confirmation of decreasing sound levels and/or hearing protection requirements.

iv. Inform Safety Department of their remedial action, evaluation and implementation of engineering controls.

F. ADMINISTRATIVE CONTROLS

1. Administrative Controls may be appropriate in some cases for control of noise exposure. Example: rotating task activity in the work area during the work shift from the higher noise exposure to lower noise exposure for compliance to OSHA action level (85 dBA TWA).

2. DEPARTMENT SUPERVISORS SHALL:
   i. Implement and monitor administrative controls to reduce the specific employees work time in areas requiring hearing protection.
   ii. Develop and implement standard operating procedures for the rotation of their employees conducting work tasks in an area that requires hearing protection.
   iii. Ensure that re-testing has been conducted after implementation of administrative controls for confirmation that the employee's exposure is below OSHA action level (85 dBA TWA).
   iv. Inform **Terra Contracting Inc.** Safety Department of the administrative controls, post the procedures of such controls and provide a copy to the affected employees.

G. HEARING PROTECTION

1. **Terra Contracting Inc.** Safety Department will administer hearing protection and training requirements. All hearing protectors to be evaluated for specific environments used during yearly program review.

2. Provide the affected employee a choice of hearing protectors, including at least (2) muff types and (2) earplug types of hearing protectors. The hearing protectors, along with any replacement will be provided at "no cost" to the employee, except for situations of misuse. **Terra Contracting Inc.** will train to achieve comfort and proper fit of the protectors offered.

3. All **Terra Contracting Inc.** employees shall be trained as to the causes and prevention of hearing loss while away from work. **Terra Contracting Inc.** will provide disposable hearing protection devices (earplugs) at no cost to the employee.

H. TRAINING

1. New hire employees will receive Occupational Noise Exposure training in new hire orientation by Safety Department. Also, within 30 days of enrollment into **Terra Contracting Inc.** Hearing Conservation Program.

    i. All **Terra Contracting Inc.** affected employees will receive annual refresher training at least every 12 months for as long as the noise exposure continues to equal or exceed the action level.

2. **Terra Contracting Inc.** employees will be trained in:
    i. General requirements of OSHA'S noise rule.
    ii. Effects of noise on hearing.
    iii. Purpose and value of wearing HPD.
    iv. Advantages and disadvantages of HPD on the job and off the job.
    v. Selection of HPD and proper fitting
    vi. Various types of hearing protectors offered and the care, fitting and use of each type.
    vii. **Terra Contracting Inc.** and employee responsibilities regarding administrative/engineering controls
    viii. Employer and employee's respective tasks in addressing noise, administrative and engineering controls.

    Definition: STS = Standard Threshold/Shift
    RHL = Reportable Hearing Loss

3. All **Terra Contracting Inc.** vendors and/or contractors that must enter hearing protection required areas for work activity shall provide their own OSHA certificate of training and their own hearing protection. Also, they must comply with OSHA 1926.52 Health Standards for Occupational Noise Exposure.

4. All **Terra Contracting Inc.** vendors and/or contractors shall receive notice of the requirement for training in sites-specific hazard training before conducting work activity in a hearing protective area by the department supervisor and/or Safety department.

5. **Terra Contracting Inc.** will request a follow-up evaluation when a STS or RHL has occurred and been sustained by a repeat audiogram.

6. Invalid, STS & RHL Audiogram Follow-up Evaluation Procedures.
7. **Terra Contracting Inc.** Safety department shall schedule the employee to have a retest within 30 days, and request:
    i. A recent audiogram.
    ii. If a valid audiogram is obtained, they shall report the results to the **Terra Contracting Inc.** Safety department within 5 days.
    iii. If the audiogram is still invalid, they shall:
        1. Perform an examination, if pre-employment physical exam was done elsewhere.
        2. When necessary schedule further examinations or consultations in order to accurately diagnosis the reason for the invalid hearing test.
        3. Obtain an audio logical consultation for all employees whose cause is not otherwise determined.
        4. Ensure that a valid audiogram or “best” audiogram (if the cause cannot be further treated) is obtained at the end of treatment or the evaluation process and
        5. Designate this exam as the employee's baseline audiograms.
    iv. The results of its evaluation shall be reported to **Terra Contracting Inc.** Safety department.
    v. Include the cause of determination:
        1. Work related
        2. Not work related
        3. Cannot be determined
        4. The designated baseline audiogram results
        5. When the next audiogram should be scheduled
        6. **Terra Contracting Inc.** Safety department shall evaluate the cause of initially invalid audiogram and for work related cause.
    vi. For non-industrial related exposure, refer the employee to their private physician for further evaluation and medical care.
    vii. For work related cause, the employee will be referred to the company’s industrial insurer for treatment.
    viii. For a “cannot be determined cause”, referred to a consultation from an Audiologist, through the industrial insurer.
    ix. Schedule the employee for their next audiogram.
    x. Establish the valid or best audiogram as the employee's baseline audiogram.
    xi. Inform the employee of the results within 10 days.
    xii. Schedule the employee for hearing protection and training when they are assigned to work activity in an area that requires hearing protection.

8. ANNUAL AUDIOMETRIC TESTING:
    i. All **Terra Contracting Inc.** employees that are enrolled into **Terra Contracting Inc.** Hearing Conservation Program shall have an initial audiogram within the first six months of exposure, and annually thereafter:
    ii. **Terra Contracting Inc.** new employees or transferred employees from other operations, shall have a baseline audiogram established, if they work in a required hearing protection area.
    iii.
        1. Upon receipt of the results of audiograms, **Terra Contracting Inc.** Safety department shall within 15 days:
            a. Inform the employee of results and provide the employee a copy of audiogram.
            b. Schedule any employee who has had a Standard Threshold Shift (STS) or Reportable Hearing Loss (RHL) for a repeat audiogram and/or a follow-up evaluation.
        2. Upon receipt of the results of the repeat audiogram and/or the follow-up evaluation **Terra Contracting Inc.** Safety department shall:
            a. If neither a STS or RHL has been sustained by the repeat audiogram and or follow-up evaluation, the employee shall be notified that no other action is necessary.
            b. If an STS or RHL has been confirmed and is judged to be work related **Terra Contracting Inc.** Safety department will initiate remedial action to prevent further hearing loss by re-evaluation of engineering and administration controls, transferring the employee to another area and/or enforcement of compliance to **Terra Contracting Inc.** Hearing Conservation Policy and Procedures.
                i. Within 21 days, provide written notification to employee of STS or RHL.
            c. If an employee has a 25 dBA shift or more at 2000, 3000, and 4,000 Hz in either ear and has been determined by the evaluation physician to be work related, **Terra Contracting Inc.** Safety department will process an injury/illness report via OSHA 300 log and insurer referral to the industrial insurer.

I. RECORD KEEPING

1. **Terra Contracting Inc.** Safety department shall comply with all aspects of OSHA 1926.52.

2. The authorized representatives of the Secretaries of Labor and Health and Human Resources have access to all records required under OSHA 1904. Upon written request **Terra Contracting Inc.** will provide, within 15 calendar days of the request; access to records as per specifications of OSHA 1904.

3. The following records shall be kept:
   i. Environmental noise testing and monitoring
   ii. Initial & annual audiometric testing results
   iii. Training
   iv. When a RHL has occurred – 30 CFR Part 62.175(b)
   v. When an STS has occurred – 30 CFR Part 62.174
   vi. Any actions taken

4. **Terra Contracting Inc.** Safety department will maintain all written formal records of employee exposures.

J. KEY DEFINITIONS

1. ACTION LEVEL – An 8-hour time-weighted average sound level (TWA8) of 85 dBA, or equivalently a dose of 50% integrating all sound levels from 80 dBA to at least 130dBA.

2. AUDIOLOGIST – A professional specializing in the study and rehabilitation of hearing, which is certified by the American Speech-Language-Hearing Association (ASHA) or licensed by the state board of examiners.

3. BASELINE AUDIOGRAM – The audiogram recording in accordance with 62.170 (a) of this part against which subsequent audiograms are compared to determine extent of hearing loss.

4. CRITERION LEVEL – the sound level which if constantly applied for 8 hours results in a dose of 100% of that permitted by the standard.

5. DECIBEL (dB) – A unit used to express sound power level (Lw), the decibel is 20 times the common logarithm of the ratio of measured sound pressure to the standard reference sound pressure of 20 micropascals (uPa) which is the threshold of normal hearing sensitivity at 100 hertz

(Hz). Also for measuring hearing threshold levels, the decibel is the difference between audiometric zero (reference pressure equal to 0 hearing threshold level) and threshold of hearing of the individual being tested at each test frequency.

6. DUAL HEARING PROTECT LEVEL – A TWA of 105 dBA or equivalently a dose of 800% of that permitted by the standard, integrating all sound levels from 90 dBA to at least 140 dBA.

7. HEARING PROTECTOR – Any device or material, capable of being worn on the ear or in the ear canal, sold wholly or in part on the basis of its ability to reduce the level of sound entering the ear, and which has a scientifically accepted indicator of noise reduction value.

8. HERTZ (Hz) – Unit of measurement of frequency numerically equal to cycles per second.

9. MEDICAL PATHOLOGY – A condition or disease affecting the ear.

10. QUALIFIED TECHNICIAN – A technician who has been certified by the Council for Accreditation in Occupational Hearing Conservation (CAOHC) or by another recognized organization offering equivalent certification.

11. PERMISSIBLE EXPOSURE LEVEL – A TWA of 90 dBA or equivalently a dose of 100% of that permitted by the standard, integrating all sound levels from 90 dBA to at least 140 dBA.

12. REPORTABLE HEARING LOSS (RHL) – A change in hearing sensitivity for the worse relative to the baseline audiogram, or the revised baseline audiogram where one has been established in accordance with 62.170 (c)(2) of an average of 25 dBA or more at 2000, 3000 and 4000 Hz in either ear.

13. STANDARD THRESHOLD SHIFT (STS) – A change in hearing sensitivity for the worse relative to the baseline audiogram where one has been established, of an average of 10 dBA or more at 2000, 3000 and 4000 Hz in either ear.

TIME-WEIGHTED AVERAGE – 8 hour (TWA). The sound level which, if constant over 8 hours, would result in the same noise dose as is measured.

Addendum S: Heat Illness Prevention Program

The purpose of the Heat Illness Prevention Program is to meet the requirements set forth under the General Duty Clause, Section 5(a)(1) of the Occupational Safety and Health Act of 1970, employers are required to provide their employees with a place of employment that "is free from recognized hazards that are causing or likely to cause death or serious harm to employees." This program establishes procedures and provides information to make employers and employees aware of the measures they can take to recognize and prevent heat-related illness.

Definitions

Acclimatization: The temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within 4 to 14 days of regular work for at least 2 hours per day in the heat.

Heat Illness: Refers to a serious medical condition resulting from the body's inability to cope with a particular heat load and includes heat cramps, heat exhaustion and heat stroke.

Environmental Risk Factors for Heat Illness: Working conditions that create the possibility that heat illness could occur include air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by workers.

Personal Risk Factors for Heat Illness: Risk factors, such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption and use of prescription medications, which affect the body's water retention or other physiological responses to heat.

Potentially Impacted Employees: Employees whose job tasks expose them to environmental risk factors for heat illness.

Responsibilities

Health & Safety Coordinator

- Establish and update the written Heat Illness Prevention Program;
- Provide consultation/training to departments who fall within the program; and
- Assist departments in determining when, where, and how water is provided.

Supervisors

- Identify and maintain records of all tasks/employees that are required to work outdoors where potential heat illness could occur;
- Require all potentially impacted employees to receive proper training on heat illness prevention and comply with all appropriate procedures;
- Maintain training records;
- Ensure that adequate water is available at the beginning of each shift and throughout the workday;
- Ensure access to shade for purposes of a preventative recovery period is available during the workday; and
- Follow proper procedures to contact emergency medical services in the event medical assistance is required.

Employees

- Awareness and compliance with all appropriate heat illness prevention procedures while performing assigned duties;
- Employees are ultimately responsible for drinking adequate amounts of hydrating fluids when the environmental risk factors for heat illness are present;
- Ensure access to a recovery area is available to recover from heat-related symptoms;
- Inform their supervisor if water is inadequate;
- Report symptoms of heat-related illness promptly to their supervisor; and
- Follow proper procedures in the event medical assistance is required.

Basic Requirements

Provision of Water

Ensure that a clean and adequate supply of water and water receptacles (e.g., cups) is available throughout the workday. Adequate or enough supply is defined as enough to provide one quart per employee per hour for drinking for the entire shift. Water will be fresh, pure, suitably cool and provided to employees free of charge. The water will be located as close as practicable to the areas where employees are working. Where water is not plumbed, or otherwise continuously supplied, it will be provided in enough quantity. The frequent drinking of water, as described in the training section, will be encouraged.

High-Heat Procedures

The following high-heat procedures will be implemented when the temperature exceeds 115 F°:

Ensure that effective communication by voice, observation or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable;

Observe employees for alertness and signs or symptoms of heat illness. The employer will ensure effective employee observation or monitoring by implementing one or more of the following:

- Supervisor or designee observation of 20 or fewer employees;
- Mandatory buddy system;
- Regular communication with sole employee (such as by radio or cellular phone); or
- Other effective means of observation;
  - Designate one or more employees on each worksite to call for emergency medical services, and allow other employees to call for emergency services when no designated employee is available;
  - Remind employees throughout the work shift to drink plenty of water; and
  - Pre-shift meetings before the commencement of work must review high heat procedures, encourage employees to drink plenty of water and remind employees of their ability to take a cool-down rest when necessary.

Emergency Response Procedures

The company will implement effective emergency response procedures, including:

Ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor or emergency medical services when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services;

Respond to signs and symptoms of possible heat illness, including but not limited to first aid measures and how emergency medical services will be provided. **If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor will take immediate action commensurate with the severity of the illness.** If the signs or symptoms are indicators of severe heat illness (such as, but not limited to, decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior or convulsions), the employer will implement emergency response procedures. An employee exhibiting signs or symptoms of heat illness will be monitored and will not be left alone or sent home without being offered onsite first aid or being provided with emergency medical services in accordance with these procedures;

- Contact emergency medical services and, if necessary, transporting employees to a place where they can be reached by an emergency medical provider; and
- Ensure that, in the event of an emergency, clear and precise directions to the work site are provided as needed to emergency responders.

Acclimatization

All employees will be closely observed by a supervisor or designee during a heat wave. For purposes of this program, “heat wave” means any day in which the predicted high temperature for the day will be at least 115 F° and at least 15 F° higher than the average high daily temperature in the preceding five days.

An employee who has been newly assigned to a high heat area will be closely observed by a supervisor or designee for the first 14 days of the employee's employment.

Training

Effective training will be provided for all potentially impacted employees working where environmental risk factors for heat illness are present. The training will take place before affected employees begin work that is reasonably anticipated to result in exposure to the risk of heat illness. All potentially impacted employees, and their supervisors, will be trained on the risks and prevention of heat illness, including how to recognize heat illness symptoms and how to respond when they appear. Training information will include, but is not limited to, the topics listed in the training section of this program.

Recordkeeping

A record of training given to employees and supervisors will be retained by the company for a minimum of 3 years.

Access to Records

All records will be provided upon request to employees, former employees and representatives of employees.

Procedures

Identification of Hazard

All employees who are required to work where environmental risk factors for heat illness are present will be identified. Identification of potentially impacted employees will take place at the department level, and notifications will be provided to the Health & Safety Coordinator.

Potentially Impacted Employees

Training will be provided for all potentially impacted employees and their supervisors. All potentially impacted employees and their supervisors will be trained on the risk and prevention of heat illness, including how to recognize symptoms and how to respond should symptoms be present.

Employee Protection

One quart per hour of drinking water will be available at all times, for each employee, for the duration of his or her shift, while working outdoors in the heat. Supervisors will remind employees to drink frequently;

Training

All employees and supervisors working on job tasks where environmental risk factors for heat illness are present will receive training.

Supervisors

Supervisors that oversee employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness will receive effective training on the following topics prior to being assigned to supervise outdoor employees:

The training information required of the employees, as detailed below;

- Procedures the supervisor is to follow to implement the provisions of this program;
- Procedures the supervisor must follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures; and
- How to monitor weather reports and how to respond to hot weather advisories.

Employees

Effective training will be provided for affected employees prior to being assigned to work tasks that should reasonably be anticipated to result in exposure to the risk of heat illness to include the following:

- The environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body caused by exertion, clothing and personal protective equipment (PPE);
- The different types of heat illness and the common signs and symptoms of heat illness. This training should be accompanied by appropriate instructions on first aid and emergency responses to the different types of heat illness and a discussion of how heat illness may progress quickly from mild symptoms and signs to serious and life-threatening illness (see Appendix A);
- Procedures for identifying, evaluating and controlling exposure to environmental risk factors for heat illness;
- The importance of frequent consumption of small quantities of water, up to four cups of water per hour, when environmental risk factors for heat illness are present;
- The importance of acclimatization;
- The importance of immediately reporting symptoms or signs of heat illness, in themselves or in co-workers, to their supervisor;
- Understanding the procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by emergency medical service; and

- Procedures to ensure that, in the event of an emergency, clear and precise direction to the work site is provided to emergency responders. These procedures will include designating a person to be available to ensure that emergency procedures are invoked when appropriate.

Program Audits

An audit of the Heat Illness Prevention Program will be performed annually to ensure that heat illness prevention procedures are in place and are being properly followed. The audit will ensure that a written plan is maintained in English and the language understood by most of the workforce.

Appendix A: Overview of Heat Illness Types, Symptoms and Prevention

This describes the three major forms of heat illness, how to recognize them and what actions to take to provide first-aid before medical care is provided.

Heat Cramps

Heat cramps are the most common type of heat-related injury. Heat cramps are muscle spasms which usually affect the arms, legs or stomach. Heat cramps are caused by heavy sweating, especially when water is not replaced quickly enough. Frequently they do not occur until after work, at night or when relaxing. Although heat cramps can be quite painful, they usually do not result in permanent damage.

Prevention/First Aid: Drink an electrolyte solution, such as sports drink, or plenty of water during the day, and try eating more fruits to help keep your body hydrated during hot weather.

Heat Exhaustion

Heat exhaustion is more serious than heat cramps. It occurs when the body's internal temperature regulating system is overworked, but has not completely shut down. In heat exhaustion, the surface blood vessels and capillaries, which originally enlarged to cool the blood, collapse from loss of body fluids and necessary minerals. This happens when you do not drink enough fluids to replace what you are sweating away.

Symptoms Include: Headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse (120-200), and low to normal blood pressure.

Prevention/First Aid: The employee suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned truck or building. Have him or her lie down with the feet slightly elevated. Loosen their clothing, apply cool, wet cloths or fan them. Have them drink water or electrolyte drinks. Try to cool them down and have them checked by medical personnel. Victims of heat exhaustion should avoid strenuous activity for at least a day, and they should continue to drink water to replace lost body fluids. Call 911 if the person becomes non-responsive, refuses water, vomits or loses consciousness.

Heat Stroke

Heat stroke is a life-threatening illness with a high death rate. It occurs when the body has depleted its supply of water and salt, and the victim's core body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or heat exhaustion before progressing into the heat stroke stage; however, this is not always the case. It is important to note that heat stroke symptoms are similar to those of a heart attack. Therefore, it is very important to know how to recognize the signs and symptoms of heat stroke and to check for them any time an employee collapses while working in a hot environment.

Symptoms include: A high body temperature (103 degrees F); a distinct absence of sweating; hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all of the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting or confusion; and possibly more severe systems including bizarre behavior and high blood pressure. Advanced symptoms may be seizure or convulsions, collapse, loss of consciousness and a body temperature of over 108 degrees F.

Prevention/First Aid: It is vital to lower a heat stroke victim's body temperature. Quick actions can mean the difference between life and death. Pour water on them, fan them or apply cold packs.

Call 911 to get the person medical aid as soon as possible.