

Health & Safety



Personal Protective Equipment

Personal protective equipment (PPE) refers to protective clothing, helmets, goggles, or other garments or equipment designed to protect the employee's body from injury or infection. The hazards addressed by protective equipment include physical, electrical, heat, chemicals, biohazards, and airborne particulate matter. PPE is the last line of defense in preventing an injury, or minimizing the degree of injury.

General Eye Protection for Ardaman Work

Examples of potential eye or face injuries include:

- Dust, dirt, metal or wood chips, and foreign materials entering the eye from activities such as drilling, sampling, chipping, grinding, sawing, hammering, the use of power tools or even strong wind forces.
- Chemical splashes from corrosive substances, hot liquids, solvents or other hazardous solutions.
- Objects hitting the eye or face, such as tree limbs, chains, tools, ropes, or wires.
- Radiant energy from welding, harmful rays from the use of lasers or other radiant light (as well as heat, glare, sparks, splash and flying particles).

Types of Eye Protection

The selecting of the most suitable eye and face protection for employees should take into consideration the following elements:

- Ability to protect against specific workplace hazards.
- Should fit properly and be reasonably comfortable to wear.
- Should provide unrestricted vision and movement.
- Should be durable and cleanable.
- Should allow unrestricted functioning of any other required PPE.

Some of the most common types of eye and face protection for our work include the following:

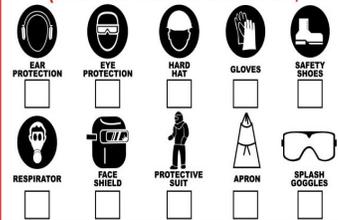
- **Safety glasses.** These protective eyeglasses have safety frames constructed of metal or plastic and impact-resistant lenses. Side shields are available on some models.
- **Goggles.** These are tight-fitting eye protection with rubber linings for a tight fit that completely cover the eyes, eye sockets and the facial area immediately surrounding the eyes and provide protection from impact, dust and splashes. Some goggles will fit over corrective lenses.
- **Welding shields.** Constructed of vulcanized fiber or fiberglass and fitted with a filtered lens, welding shields protect eyes from burns caused by infrared or intense radiant light; they also protect both the eyes and face from flying sparks, metal spatter and slag chips produced during welding, brazing, soldering and cutting operations. OSHA requires filter lenses to have a shade number appropriate to protect against the specific hazards of the work being performed to protect against harmful light radiation.
- **Face shields.** These transparent sheets of plastic extend from the eyebrows to below the chin and across the entire width of the employee's head. Some are polarized for glare protection. Face shields protect against nuisance dusts, potential splashes or sprays of hazardous liquids and embers from grinding but will not provide adequate protection against impact hazards. Face shields used in combination with goggles or safety glasses will provide additional protection against impact hazards.



February 3, 2026
Ardaman & Associates, Inc.
A Tetra Tech Company



**PROTECTIVE EQUIPMENT
THE FOLLOWING MUST BE WORN
IN THIS AREA**
(PLEASE CHECK APPROPRIATE BOXES)



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Types of Hard Hats for Ardaman Work

There are many types of hard hats available in the marketplace today. In addition to selecting protective headgear that meets ANSI Z89.1 standard requirements, employees should wear hard hats that provide appropriate protection against potential workplace hazards.

Hard hats are divided into three industrial classes:

- **Class G hard hats** provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
 - **Class E hard hats** provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards by flying/falling objects.
 - **Class C hard hats** provide lightweight comfort and impact protection but offer no protection from electrical hazards.
- ♦ **All Ardaman hard hats are rated Class E and G. In addition, our hard hats are a full brim design and provide protection from the sun. They are to be worn on all job sites, per client requirements, and when overhead hazards are present.**

Periodic cleaning and inspection will extend the useful life of protective headgear. A daily inspection of the hard hat shell, suspension system and other accessories for holes, cracks, tears or other damage that might compromise the protective value of the hat is essential. Paints, paint thinners and some cleaning agents can weaken the shells of hard hats and may eliminate electrical resistance. Never drill holes in, or paint protective headgear as this may reduce the integrity of the protection. Do not store protective headgear in direct sunlight, such as on the rear window shelf of a car, since sunlight and extreme heat can cause damage.

Hard hats with any of the following defects should be removed from service and replaced:

- Perforation, cracking, or deformity of the brim or shell;
- Indication of exposure of the brim or shell to heat, chemicals or ultraviolet light and other radiation (in addition to a loss of surface gloss, such signs include chalking or flaking).
- Always replace a hard hat if it sustains an impact, even if damage is not noticeable. Suspension systems are offered as replacement parts and should be replaced when damaged or when excessive wear is noticed. It is not necessary to replace the entire hard hat when deterioration or tears of the suspension systems are noticed.
- **Ardaman Bullard Hard Hats expire after 5 years from the date inside the hard hat. Remember to inspect your hard hat annually for expiration. Look for the date inside using the sundial.** (see photos to left with hard hat sun dials for expiration sample)

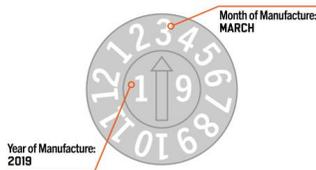
Ardaman Hearing Protection Guide

- Employees working around drill rigs or on an air boat while the machinery is “on” or when within 25 feet of the drill rig, must wear hearing protection (e.g. ear plugs or ear muffs)
- Ear muffs must be worn while operating an airboat at all times (ear plugs may be needed in addition to ear muffs when working for longer durations on the airboat).
- Employees must comply if signs are posted for hearing protection in the work area. (e.g. areas of CMT Lab)

General rule of thumb for hearing protection: If an employee must yell for another co-worker to hear them nearby, hearing protection must be worn as decibel levels in that area may be high enough to cause hearing loss.

Some types of Ardaman hearing protection include:

- Single and multi-use earplugs are made of waxed cotton, foam, silicone rubber or fiberglass wool. They are self-forming and, when properly inserted, they work as well as most molded earplugs.
- Earmuffs require a perfect seal around the ear. Glasses, facial hair, long hair or facial movements such as chewing may reduce the protective value of earmuffs.



Example Above: Born on date 3/2019
Expiration date is 3/2024

Hearing Protection for Ardaman Work

Determining the need to provide hearing protection for employees can be challenging. Employee exposure to excessive noise depends upon a number of factors, including:

- The loudness of the noise as measured in decibels (dB).
- The duration of each employee's exposure to the noise.
- Whether employees move between work areas with different noise levels.
- Whether noise is generated from one or multiple sources.



Types of Protective Gloves for Ardaman Work

There are many types of gloves available today to protect against a wide variety of hazards. The nature of the hazard and the operation involved will affect the selection of gloves. The variety of potential occupational hand injuries makes selecting the right pair of gloves important. It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to provide appropriate protection.

The following are examples of some factors that may influence the selection of protective gloves for a workplace.

- Type of chemicals handled.
- Nature of contact (total immersion, splash, etc.).
- Duration of contact.
- Area requiring protection (hand only, forearm, arm).
- Grip requirements (dry, wet, oily).
- Thermal protection.
- Size and comfort.
- Abrasion/resistance requirements.



AAI Drilling Gloves

Leather, Canvas or Metal Mesh Gloves

Sturdy gloves made from metal mesh, leather or canvas provide protection against cuts and burns. Leather or canvas gloves also protect against sustained heat.

- **Leather gloves** protect against sparks, moderate heat, blows, chips and rough objects.
- **Aluminized gloves** provide reflective and insulating protection against heat and require an insert made of synthetic materials to protect against heat and cold.
- **Aramid fiber gloves** protect against heat and cold, are cut, - and abrasive - resistant and wear well.
- **Synthetic gloves** of various materials offer protection against heat and cold, are cut - and abrasive - resistant and may withstand some diluted acids. These materials do not stand up against alkalis and solvents.

Fabric and Coated Fabric Gloves

Fabric and coated fabric gloves are made of cotton or other fabric to provide varying degrees of protection.

- **Fabric gloves** protect against dirt, slivers, chafing and abrasions. They do not provide sufficient protection for use with rough, sharp or heavy materials. Adding a plastic coating will strengthen some fabric gloves.
- **Coated fabric gloves** are normally made from cotton flannel with napping on one side. By coating the unnipped side with plastic, fabric gloves are transformed into general-purpose hand protection offering slip-resistant qualities. These gloves are used for tasks ranging from handling bricks and wire to laboratory chemical containers. When selecting gloves to protect against chemical exposure hazards, always check with the manufacturer or review the manufacturer's product literature to determine the gloves' effectiveness against specific workplace chemicals and conditions.

Chemical - and Liquid - Resistant Gloves

- **Nitrile gloves** are made of a copolymer and provide protection from chlorinated solvents such as trichloroethylene and perchloroethylene. Although intended for jobs requiring dexterity and sensitivity, nitrile gloves stand up to heavy use even after prolonged exposure to substances that cause other gloves to deteriorate. They offer protection when working with oils, greases, concrete, acids, caustics and alcohols but are generally not recommended for use with strong oxidizing agents, aromatic solvents, ketones and acetates.
- **Natural (latex) rubber gloves** are comfortable to wear, which makes them a popular glove. These gloves protect workers' hands from most water solutions of acids, alkalis, salts and ketones. Latex gloves have caused allergic reactions in some individuals and may not be appropriate for all employees. They should only be used if required for specific testing per standards, otherwise; nitrile gloves should be worn.
- **Neoprene gloves** are made of synthetic rubber and offer good pliability, finger dexterity, high density and tear resistance. They protect against hydraulic fluids, gasoline, alcohols, organic acids and alkalis. They generally have chemical and wear resistance properties superior to those made of natural rubber.
- **Butyl gloves** are made of a synthetic rubber and protect against a wide variety of chemicals, such as peroxide, rocket fuels, highly corrosive acids (nitric acid, sulfuric acid, hydrofluoric acid and red-fuming nitric acid), strong bases, alcohols, aldehydes, ketones, esters and nitro compounds. Butyl gloves also resist oxidation, ozone corrosion and abrasion, and remain flexible at low temperatures. Butyl rubber does not perform well with aliphatic and aromatic hydrocarbons and halogenated solvents.

Common Sense Rules for Glove Use

- Select gloves which are resistant to the chemicals you may be exposed to. Consult the relevant Safety Data Sheet (SDS) which may recommend a particular glove material;
- Select gloves of the correct size and fitting
- Before use, check gloves (even new ones) for physical damage such as tears or pin holes and for previous chemical damage. This is especially important when dealing with dangerous materials such as acids or corrosives;
- When removing gloves, do so in a way that avoids the contaminated exterior contacting the skin. Grab the collar of the glove and pull them off inside out;
- Wash hands after removing gloves;
- Dispose of contaminated gloves properly;
- Do not attempt to re-use disposable gloves;
- Avoid the use of latex gloves when possible because of possible allergic reactions. Also, latex gloves will melt when exposed to petroleum products and cement. Always wear nitrile gloves when working with these products. Latex should only be used if required for specific environmental sampling according to an established method.



AAI Lab and Field Gloves

High Visibility Clothing at Ardaman

High visibility breakaway safety vests or shirts (Class 2) are required on all construction sites, DOT projects, when working or surveying within 15 feet of a roadway, when acting as a spotter, and according to client requirements.

Ardaman requires breakaway style vests to ensure individuals cannot be drawn into rotating equipment if the vest were to get caught.

Class 3 high visibility safety vests or shirts must be worn at all times when performing work at night on roadways.



Class 2 breakaway vest



Class 2 high-vis shirt



Class 3 breakaway vest



Class 3 high-vis shirt

Safety Boots for Ardaman Work

All employees engaged in testing concrete, soil, and steel, or performing field monitoring, sampling, surveying services, must wear safety toed boots. Safety toed boots are also required on all construction sites and in areas where crush hazards are present. Safety toed boots should be a minimum of 6" lace up style. Alternative boots (e.g. rubber slip on, waders) may be required depending on work site conditions and should have a safety toe incorporated in them. Safety toed footwear must have a toe made of either steel, aluminum, or composite material.

Safety Toed footwear is required at all times when working in all CMT areas. (Field and Lab)

All employees performing or observing drilling operations must wear safety toed boots on all project sites and at rig maintenance areas.

Safety toed footwear must meet the requirements of ANSI Z-41-1999/ASTM F2412-13.

Sneakers, loafers, deck shoes, sandals and other types of leisure wear are not appropriate footwear on jobsites or in Company laboratories. No open toed shoes are allowed in the lab, testing or yard areas; closed toe shoes only in these areas.

Leisure footwear may only be worn at Company offices in areas where there is no potential exposure to chemicals or objects that may injure unprotected feet.

Ardaman will pay the full price of the safety boots up to \$50.00. In addition, Ardaman will reimburse 50% of the boots' cost above the initial \$50.00 covered by the Company. The reimbursement program is for one pair of safety toed work boots per year.



What is the "Line of Fire" and how can I avoid it?

The term "line of fire" is very common when talking about the hazards of a work task. Depending on the work being completed, there may be many different lines of fire or there could be as little as one. It is important to understand what the "line of fire" is and how to avoid it to prevent injuries.

A simple definition of "line of fire" is being in harm's way. Line of fire injuries occur when the path of a moving object or the release of hazardous energy intersects with an individual's body.

Three major categories of line of fire incidents are caught-in or between incidents, struck-by incidents, and released energy incidents. There are many specific examples of hazards for each of these categories. A few quick examples for each category:

Caught-in or between- A technician is standing between a wall and an excavator. When the excavator spins around the counterweight pins the worker against the wall. Another example would be a worker placing their hand too close to a rotating gear on the drill rig and gets it pulled into the gear.

Struck-by- A pedestrian struck by a moving vehicle or an object falling from a higher level striking a worker below are examples of struck-by incidents.

Released energy- A pipe/hose releasing hydraulic fluid from a valve that is being removed or a flame shooting out of a malfunctioning engine

are examples of released energy.

The best way to avoid the mentioned incident types is to eliminate the related hazards whenever possible. By totally eliminating the hazards, there is no chance that you or anyone else in the work area can be injured by that hazard.

When elimination is not possible, engineering controls are the next best choice in protecting yourself from injury. Some engineering controls that could protect you from line of fire incidents include physical barriers, guarding around moving parts, and toe boards on elevated work platforms to prevent objects from falling to the area below.

There are many other possible engineering controls that could be used depending on the specific hazard.

Total elimination of hazards is not always possible, and engineering controls may not be feasible, or they can fail. Because of this reality, it is important to decrease your chance of being a victim of line of fire injuries by not putting yourself in harm's way in the first place.

Understand the work tasks that are going on around you and the associated hazards. Review the JSA for a task before starting. Ask yourself what is the worst that can happen or what will happen if a certain safeguard fails. Recognize the hazards of your work, act accordingly, and wear your PPE.

Ardaman Update



Injury Incidents:

- No Injuries for January, great job everyone!

Vehicle and Equipment Incidents:

- The employee had their company vehicle parked in the driveway at their residence. The cleaning company was leaving and backed into the AAI unattended vehicle. Our employee tried to stop the driver, but the driver was not paying attention. Before backing, always perform a safety walk and check your mirrors and back up camera if available. (Orlando)
- A company vehicle was backed into by another driver while parked overnight in the company parking lot. A large pickup truck was observed on video pulling into our parking lot in the back entrance. They turned around in the parking lot and began backing to leave and backed into the parked unattended vehicle in our parking lot. Remember to park in well lit areas to increase visibility. (Orlando)
- The employee was in the far-left lane traveling on a underpass. They were in the process of slowing down while approaching a red traffic light. While slowing down in the left lane another vehicle in the middle lane came over into our lane and struck the passenger side rear quarter panel of our truck bed. Always provide a space cushion around your vehicle and leave yourself a way out. (Orlando)
- The employee had the main hydraulic hose running from the tank to the motor on the drill rig rupture during operations. The rig spilled approximately 1 gallon of hydraulic fluid. The crew immediately turned off the rig and used the spill kit to minimize and contain the spill. Remember to inspect all hoses during the required morning equipment inspection. Reminder that all drill rigs must have a minimum of a 5 gallon spill kit. They are available from Safety Products Inc; Item # A5SKU5 (universal spill kit). (Orlando)
- The employee noticed after stopping to inspect the vehicle after a separate event, that the trash pump that was on the trailer being pulled was missing from the trailer. The driver does not recall any events or noise that would indicate the pump fell off the trailer during transit as it was secured with a couple of ratchet straps prior to transporting it. They did stop at a gas station during their trip back to the office and it may have been stolen by a third party at that time. Always perform a safety walk before getting into a vehicle. This task allows the driver to look for damage or potential hazards around the vehicle or to ensure equipment is secured prior to traveling. (Orlando)

Near Miss / Hazard Identification

Highlighted Near Miss/ Hazard Identifications from 36 reports received from the month of December.

- Employee was parked approximately ten feet from an external mud tub for the drill rig. The suction hose was moving each time the mud pump was stopped. The drillers had placed a large pipe wrench onto the wall of the mud tub to keep the hose stabilized when the pump is stopped. The hose and pump are creating a water hammer/hydraulic shock inside the hose each time the pump is stopped. The shock during one event was so large that the hose dislodged the pipe wrench causing it to fly off and land near the employee. Unnecessary personnel should park at least twenty five feet away from all drilling activities. A proper coupling/fastener system is to be used to ensure the hose cannot come free. In this case, a metal fastener/ clamp can be tied through a hole in the mud tub and will secure the hose from any movement. (Bartow)

Ardaman Safety Audits

Identified Hazards from Loss Prevention Observation/ Safety Audits conducted in the month of December.

- **Struck By:** Employee observed drill crew work area was not designated with traffic cones. Drill rigs should establish a 25 foot exclusion zone around them using the traffic cones to ensure others are aware of the potential hazards that may exist.
- **PPE:** Employee not wearing nitrile gloves or safety glasses while sampling wet concrete. PPE is required during specific work tasks. Refer to the JSA for required PPE. In this case the employee was exposed to splashing and impact to the eyes from the wet concrete along with dermatitis/ burns on his hands.

Ardaman Health and Safety Recognition Awards



The safety committee reviewed an increased volume of submittals. We are continuing the lottery pool this month and with the increase of submittals this month, we drew two winners at random for a \$25.00 gift card.

December Lottery Winners:

Jose Marcano Longa: Orlando
Armando Alejandro: Ft. Myers

A Safety Sticker was awarded to the following individuals:

- **Tyler Hough** for recognition and actions taken due to a fire being present on the job site. The employee notified the lead technician to ensure the client contained the hazard. A gift card was also provided to him. (Bartow)
- **Tyler Hough** for recognition and actions taken regarding poor driving by a contractor on the job site that almost caused an accident. Our employee paid attention and avoided another contractor not following the rules while driving on site. (Bartow)
- **Derek Bair** for observation and actions taken due to a contractor dropping off samples while wearing insufficient PPE. AAI employee warned them of the exposure and stopped them from continuing the work and transported the samples safely by themselves. (Cocoa)
- **Justin Ochs** for recognition of a malfunction extension ladder. The employee inspected the equipment and took it out of service until the safety latches were replaced. (Sarasota)

February 2026 Safety Quiz

Please circle the letter of the answer that fits best. Some answers can be found in the newsletter

1. The hard hat's outer shell is designed to protect the head from:

- A. Impacts and penetrations from above B. Dust C. Noise D. All the above

2. A hard hat should be replaced when:

- A. No longer shiny and begins chalking B. Takes a heavy blow, cracked, broken, or punctured
C. Expires D. All of the above if any of the above are present.

3. Safety glasses are required at all times on active work/construction sites and any other time an eye hazard may be present in the work environment.

- A. True B. False

4. What are the major categories for line of fire incidents that you can be exposed to?

- A. Caught in or between B. Struck by C. Released energy D. All the above

5. What class of high visibility safety vest / shirt must be worn when working on DOT roadways at night?

- A. Class I B. Class 2 C. Class 3 D. All the above

6. To protect eyes from impacts, dust, splashes, and mists, you need:

- A. Safety spectacles made of metal B. Welding goggles with filtered lenses
C. Tight-fitting chemical goggles or industrial safety glasses under a face shield. D. All the above

7. 6" lace up style safety toed work boots or taller are to be worn when working in the field and within the CMT Labs.

- A. False B. True

8. Hearing protection must be worn when?

- A. Within 25 feet of a drill rig in operation B. Operating the air boat C. When posted or if you have to yell for the person near by to hear you D. All the above

9. Nitrile gloves must always be worn when handling contaminated soil or wet concrete.

- A. True B. False

10. When you are unsure of the distance to an object when backing or parking a vehicle you should stop the vehicle and get out and look, or ask for a spotter.

- A. False B. True

11. When working in/near high vegetation or ponds, what additional PPE should be worn?

- A. Hearing protection B. Face Shield C. Snake Gaiters D. All the above

12. What minimum PPE is standard for field work and construction sites?

- A. Hard Hat and Safety Glasses B. Gloves, hearing protection (as needed), long pants and shirt with sleeves
C. High visibility safety vest/shirt and safety boots D. All the above are required

All Ardaman employees must complete the quiz and turn it into their H&S coordinator by the end of each month. For those individuals who cannot attend the monthly safety meeting, please complete the quiz and submit it to your supervisor for approval. All completed quizzes must be submitted at a designated location at each office. The supervisor only needs to sign the quiz if you are unable to attend the monthly safety meeting. Please provide a reason for your absence in the box below:

Employee Print Name	Employee Sign Name	Date
Supervisor Print Name	Supervisor Sign Name	Date

“IF IT’S NOT SAFE, STOP...DO IT THE SAFE WAY.”