



H W DAVIS CONSTRUCTION, INC.

HEALTH & SAFETY PLAN

HEALTH AND SAFETY PLAN



H W DAVIS CONSTRUCTION, INC.

HEALTH & SAFETY PLAN

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SAFETY POLICY

Policy Statement and Commitment to Safety:

The management of H W Davis Construction, Inc. is committed to providing employees with a safe and healthful workplace. It is the policy of this organization that employees report unsafe conditions and do not perform work tasks if the work is considered unsafe. Employees must report all accidents, injuries and unsafe conditions to their supervisors. Such reports will not result in retaliation, penalty or other disincentive.

Employee recommendations to improve safety and health conditions will be given thorough consideration by our management team. Management will give top priority to and provide the financial resources for the correction of unsafe conditions. Similarly, management will take disciplinary action against an employee who willfully or repeatedly violates workplace safety rules. This action may include verbal or written reprimands and may ultimately result in termination of employment.

The primary responsibility for the coordination, implementation and maintenance of our workplace safety program has been assigned to: (unless the project has a full time On-Site Safety Officer)

Name: Colleen Geving
Title: Safety Coordinator Telephone: 407-849-1212

Senior management will be actively involved with employees in establishing and maintaining an effective safety program. Our safety program coordinator, myself or other members of our management team will participate with you or your department's employee representative in ongoing safety and health program activities, which include:

- Promoting safety committee participation;
- Providing safety and health education and training; and
- Reviewing and updating workplace safety rules.

This policy statement serves to express management's commitment to and involvement in providing our employees a safe and healthful workplace. This workplace safety program will be incorporated as the standard of practice for this organization. Compliance with the safety rules will be required by all employees as a condition of employment.

H. Ward Davis, President

Date



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1. OBJECTIVE:

Set a policy to protect Contractor's, Subcontractors / Sub-subcontractors and Owner's personnel and property, the general public, Owner's guests and all others who may be present at the jobsite in all phases of construction and related activities. (The term "Subcontractor" includes Subcontractors and Sub-subcontractors by reference throughout.)

- Avoid injuries to employees and the public;
- Maximize productivity;
- Reduce construction interruption due to accidents;
- Maintain a safe and healthful workplace; and
- Assure compliance with regulatory requirements

2. METHODS OF ATTAINING SAFETY OBJECTIVES:

- a. Eliminate unsafe conditions and hazards.
- b. Employees will be given a copy of the Health and Safety Plan, Project Policies and Construction Safety Rules upon hire. It is the responsibility of the employee to comply with all rules and regulations. A complete HWD Jobsite Safety Manual can be viewed at the Jobsite Trailer if available or upon request.
- c. HW Davis Construction, Inc. will conduct Weekly Safety Meetings and maintain the record sheet on site. All H W Davis Construction employees (as well as the employees of all Subcontractors, Sub-Subcontractors and hired laborers) are required to attend the HW Davis Construction meeting. If a Subcontractor holds a separate meeting, HWD Field Superintendent is to be notified of the date and time and a copy of the report must be given to HWD Field Superintendent within 24 hours after the meeting. Holding a separate meeting does not preclude the mandatory attendance of the HWD meeting and will be in addition to.
- d. All employees are to use proper personal protective equipment. HWD (Subcontractors and Sub-subcontractors) will supply all other required safeguards and safety equipment (such as, but not limited to, fall protection equipment, fire safety).
- e. The term "employee(s)" includes and applies to all workers present at the jobsite at the express orders of Subcontractor and Sub-subcontractors on site and includes hired and leased workers.
- f. All HWD, (including Subcontractor and Sub-subcontractor) employees will be required to follow the safety plan as established by H W Davis and mandated by the attached Owner's policy. Horseplay and careless acts will not be tolerated. Proper attire will be required at all times.
- g. Safety Assessment/Pre-Job Briefing Form: At the beginning of the project, or when the need arises, employees will be advised of any potential hazards associated with their work. A Safety Assessment form will be explained at the Weekly Safety Meeting prior to that work. These hazards include, but not limited to:
 - i. Hot work (welding, burning, cutting);
 - ii. Work in a confined space;



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- iii. Shutdown of operational systems, such as fire alarm, fire sprinklers, HVAC systems serving occupied areas; (See 9. Safeguarding Safety Systems)
- iv. Introducing hazardous chemicals -solvents, corrosives, compressed gases, gasoline - onto the site;
- v. Work with hazardous chemicals adjacent to any occupied area that is being serviced by the same air conditioning unit or where fumes may seep into those occupied areas;
- vi. Cranes or any large equipment;
- vii. Trenching;

3. GENERAL INSTRUCTIONS:

- a. All applicable requirements of the "Contract Work Hours and Safety Standards Act" (Public Law 91-54; 86, Stat. 96: 40 U.S.C. 327), entitled "Safety and Health Regulations for Construction", (Federal OSHA 29 CFR Part 1010, "General Industry Standards" and Part 1926, Construction Regulations," and USA Standards Institute A10-2-1944, Safety Code for Building Construction) will be observed.
- b. The following list of names of key personnel who can be contacted in times of emergency:

H. Ward Davis, President	407-859-7756
Jeffrey J. Rife, Vice-President	407-323-8179
Jim Peacock, Project Manager	407-496-5232
Colleen Geving, Safety Manager	407-849-1212

4. SAFETY COMMITTEE:

- a. A Safety Committee has been established to identify potential hazards in our workplace and to recommend improvements and identify corrective measures. This committee consists of Colleen Geving, Safety Coordinator, Jim Peacock, Personnel Director and one Non-Supervisory Representative. This committee will meet once every 3 months and minutes of that meeting will be posted within one week of the meeting.
- b. The Safety Committee will assist Management in reviewing and updating Workplace Safety Rules, implementing changes to Safety Program and accepting anonymous complaints and suggestions from employees.

5. SAFETY EDUCATION:

- a. All employees of H W Davis Construction, Subcontractors, Sub-subcontractors and hired laborers must be instructed in the safety requirements applicable to the work and recognition of unsafe conditions.
- b. Employees will be instructed on how to read and interpret Material Safety Data Sheets (MSDS) and will be updated with types of chemicals with which they may come in contact.
- c. OSHA Part 1926 Construction Safety & Health Compliance Manuals must be kept at the jobsite and accessible to all employees at all times.



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- d. A “buddy system” will be adopted and workers instructed to be cognizant of fellow workers on a daily basis thus, in the event of mass chaos, it can be confirmed that all workers are safe.

6. REPORTING AND RECORDING ACCIDENTS:

- a. All HWD, (including Subcontractor and Sub-subcontractor) employees will immediately report to H W Davis any accident (whether deemed “recordable” or not) or any damage to Owner’s facility or property. A written report must be submitted to H W Davis upon completion of investigation. (But no more than 24 hours after the incident.)
- b. An employee discharged for safety rule infractions will not be allowed to return to any H W Davis worksite without written authorization from H W Davis.

7. FIRST AID AND MEDICAL SERVICE:

- a. First aid kits will be located in the office trailer.
- b. All employees are to use the closest facility in the case of an emergency. In life threatening situations, 911 is to be used. In non-emergency cases, use the facilities listed below.
- c. The following will be posted in a prominent place at each jobsite so that medical service will be expedited:

Life-threatening
Emergency
Non-Emergency

Dial 911
Closest hospital
Florida Hospital – CentraCare (closest to job);
Pine Castle Walk In – 407-850-0056
Or closest Walk-In Clinic

- d. Material Safety Data Sheets (MSDS) will be available should contact with a hazardous chemical occur.



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FIRE PROTECTION / PREVENTION:

- a. The emergency number 911 is to be used at all times.
- b. Compliance with the OSHA 1926 CONSTRUCTION SAFETY & HEALTH codes, Section 1926.150 through 1926.155 will be strictly enforced.
- c. Fire extinguishers of appropriate type for individual hazards will be provided as needed for various locations. The extinguishers will be serviced and maintained as recommended by manufacturer. Employees are to inform HW Davis of any incident involving fire or use of a fire extinguisher.
- d. Fire prevention will be an integral part of safety education and safety meetings.
- e. Subcontractor/Sub-subcontractor's Field Superintendent will be continually alert to possible fire hazards and will inform HW Davis immediately of any concerns.
- f. Fire exits will be unobstructed for egress, clearly marked with (manual) operable doors.
- g. Smoking will be prohibited except in designated areas.
- h. Portable heating apparatus shall NOT be used unless authorized by HW Davis Field Superintendent.
- i. Hot Work (welding, burning or cutting or any work involving devices that produce flame, heat, or spark) will be allowed ONLY after a permit has been obtained. Subcontractor / Sub-subcontractor will notify HW Davis Field Superintendent / Project Manager at least 24 hours prior to commencing and will not proceed until authorized by HW Davis.

EMPLOYEE TRAINING – PART 1. GENERAL KNOWLEDGE

Fire is always a possibility anywhere especially on the jobsite/worksites with building materials and chemicals constantly present. But the danger to you will be less if you are well acquainted with the hazards and take proper precautions. The best way to fight a fire is to prevent it from happening. But what can you do if you are faced with a fire? First you must understand the fundamentals.

In order for a fire to occur, three elements must be present:

- FUEL** - Some kind of substance that will burn
- AIR** - Oxygen is necessary for combustion
- HEAT** - A certain temperature must be reached before ignition

If these essentials combine, a fire will start. Prevention revolves around keeping the combination of elements from happening - take away any one element and you take away the possibility of a fire.

General Classes of Fires:

Class A: This type of fire is the most common. The combustible materials are wood, cloth, paper, rubber and plastics. The common extinguisher agent is water; but dry chemicals are also effective. Carbon dioxide extinguishers and those using sodium or potassium bicarbonate chemicals are not to be used on this type of fire.



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Class B: Flammable liquids, gases, greases, and some rubber and plastic materials create Class B fires. The extinguishers to use are foam, carbon dioxide and dry chemical. Also, water fog and vaporizing liquid extinguishers can be used.

Class C: Class C fires are energized electrical equipment and power supply circuits and a non-conducting agent must be used. Carbon dioxide and dry chemical extinguishers are to be used. Never use foam or water-type extinguishers on these fires.

Class D: Combustible metals, such as magnesium, titanium, zirconium and sodium fires are Class D. These fires require specialized techniques to extinguish them. None of the common extinguishers should be used since they can increase the intensity of the fire by adding an additional chemical reaction.

Types of Fire Extinguishers:

There are only two dry chemical extinguishers that can be used on A, B, and C fires and those are multi-purpose ABC extinguishers, either stored pressure or cartridge operated.

Multi-purpose extinguishers (ABC) will handle all A, B, and C fires. All fire extinguishers are labeled with either ABC, or A or B or C - so be sure to read the label.

Extinguishers suitable for Class A fires should be identified by a triangle containing the letter "A."

If colored, the triangle should be **green**.

Class A Ratings: 1-A, 2-A, 3-A, 4-A, 6-A, 10-A, 20-A, 30-A, 40-A.

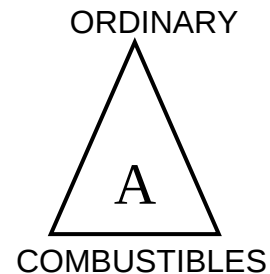
A 4-A extinguisher, for example, should extinguish about twice as much as a 2-A extinguisher.

Extinguishers suitable for Class B fires should be identified by a Square containing the letter "B". If colored, the square shall be colored **red**.

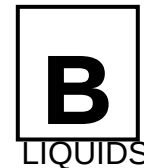
Class B Ratings: 1-B, 2-B, 5-B, 10-B, 20-B, 30-B, 40-B, and up to 640-B.

Extinguishers suitable for Class C fires should be identified by a circle containing the letter "C." If colored, the circle should be **blue**.

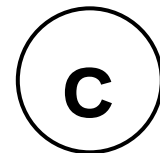
Class C Ratings: Tested only for electrical conductivity. However, no extinguisher gets a Class C rating without a Class A and/or Class B rating



FLAMMABLE



ELECTRICAL



EQUIPMENT



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Extinguishers suitable for fires involving metals should be identified by a five-pointed star containing the letter "D." If colored, the star shall be colored **yellow**.

Class D Ratings: Check the extinguisher faceplate for the unit's effectiveness on specific metals

COMBUSTIBLE



Extinguishers suitable for more than one class of fire should be identified by multiple symbols placed in a horizontal sequence.

Housekeeping to prevent fires:

The importance of good housekeeping ties in closely with fire prevention. If you allow debris or flammable material to accumulate, the risk of starting a fire increases. There is always the possibility that fire may break out. Fire prevention is part of the job of everyone. Everyone must help to keep the work area clutter-free and safe from other fire hazards, such as improperly used or stored chemicals. You also need to know what to do in the case of a fire emergency. The outside areas should be kept clean of construction debris and surrounding areas kept clear of weeds and brush. Smoking is permitted in designated areas only.

In case of fire:

When a fire starts, your first thought should be of your safety and the safety of others. Only if you have been trained in the use of extinguishers, and the fire is small and tame enough to be extinguished by a hand-held extinguisher should you try to put it out by that method.

When the fire is out of control, the combustible material is unknown, or you have not been trained in the proper use of extinguishers, leave the firefighting to professionals with the proper equipment. In this case, sound the fire alarm, and then call for emergency help from a safe place.

- Do not panic – dangerous mistakes can be made
- Stay calm
- Assess the extent of the blaze
- Act quickly to contain or extinguish the blaze

If the fire can be contained or extinguished, a properly trained person should use the right extinguisher on the blaze. On a typical extinguisher, you should:

- Hold the extinguisher upright,
- Pull the pin
- Aim at the base of the fire
- Stand back 8 to 10 feet and squeeze the lever
- Sweep from side to side



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Sweep at the base of the fire with the extinguishing agent. If you aim high at the flames, you won't put out the fire. Remember too, that most extinguishers have a very limited operation time, as low as 8 to 10 seconds and some up to a minute and a half, so you have to act fast and spray correctly at the base of the fire, not at smoke or flames.

Time is of the essence in firefighting. The smaller the fire, the easier it is to extinguish. Know the location of fire alarms and extinguishers. Know the nearest fire exit and proceed to it in an orderly fashion.

Be extremely cautious of smoke and noxious fumes. These fumes enter the lungs and leave a person unconscious and at the mercy of flames. All fires consume oxygen while burning. Most victims of a fire suffocate from lack of oxygen and die. They are already unconscious or dead before the flames consume them.

Inside a burning building you should shut all doors within your reach. If you can make your way to an exit, get to your hands and knees and crawl. This is important because smoke and heat rise rapidly and you will inhale less smoke near the floor. Once outside get upwind, away from the direction of the flames and smoke to avoid inhaling more smoke and fumes.

Use a shield. In any fire situation inside a building, anything you can use as a shield -- heavy blanket or tarp -- will help you get out of the building with less risk of injury. A wet cloth or handkerchief over your nose and mouth will help cut down smoke inhalation.

First Aid / Emergency Procedures:

Move victim to fresh air

If breathing is difficult, give oxygen. If not breathing, give artificial respiration

Immediately flush exposed skin with water for 10 to 20 minutes. Do not scrub

If eyes are involved, flush with running water for at least 15 minutes

Remove any contaminated clothing

Cool the burn as quickly as possible with cool water

Cover burn with dry, sterile dressing (never cotton balls). Do not apply ointments or neutralizing solution.

Keep victim warm and quiet. Seek medical attention immediately.

EMPLOYEE TRAINING – PART 2. HAZARDOUS MATERIALS

Handling Flammables on the Job

It is your own interest to know and practice good safety habits on the job. Your decisions not only affect your safety but also the safety of the general public. Accidents cause injury, property damage, affect your company's public image and show up negatively on your work record.



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A key step in safety is to know the hazards of the material with which you work. That holds true whether you are shipping - hauling - warehousing -- or using it. Whatever, be sure you have complete instructions for handling flammables.

Specific characteristics of a flammable determine how and why it will burn. The degree of hazard depends on the specific properties of the flammable. You should know how any flammable with which you work will act in a fire, under what conditions it will ignite or explode, and how to handle it in an emergency.

What is a Flammable?

A flammable is a material that ignites easily and burns quickly. Gasoline, acetone, lacquer, thinners or matches are examples with which most of us are familiar.

Flammables can be either solid or liquid. In terms of liquids, here are some definitions you should know:

A flammable liquid - has a flashpoint below 100 F

A combustible liquid - has a flashpoint at or above 100 F up to 200 F

Both burn intensely (once ignited), are explosive under certain conditions, and can spread a fire rapidly and uncontrollably.

Flash Point

What is a flash point? The flash point is the temperature at which a liquid produces enough vapors to be ignited. More than any other single factor, flash point determines the flammability hazard of a liquid - **the lower the flash point, the more flammable the liquid and the more dangerous.**

If the temperature is high enough, every flammable liquid produces vapors that are extremely flammable. If an ignition source of proper intensity is present, the vapors will ignite or explode. Beware -- conditions can change rapidly.

What are the Dangers?

An unopened drum or other container of flammable material is only a potential hazard. It is when the flammable gets out of control that trouble begins.

Look for these "danger signals"

- o **Leakage** (punctures and dents can result from rough handling)
- o **Deterioration of the container** (rust)
- o **Heat source nearby**



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Some reasons that flammables are dangerous are listed here:

- o Flammable/combustible material may be ignited by heat, sparks or flames **IT ISN'T THE GASOLINE THAT IGNITES -- IT'S THE FUMES.**
- o A spark from metal touching metal, static electricity or emitted from a cell phone can ignite fumes when fueling a vehicle.
- o Vapors may travel to a source of ignition and flash back
- o Container may explode in the fire or the heat generated
- o Vapor explosion hazard indoors, outdoors or in sewers

A very dramatic danger can result if a flammable liquid heats rapidly to a temperature above its boiling point. The vapors expand and cause internal pressure. When the container can no longer withstand the internal pressure, release and ignition of the flammable vapors occur and it can explode.

Flammables also have potential health hazards. They --

- **may be poisonous**
- **may irritate or burn skin and eyes**
- **may produce an irritating or poisonous gas when on fire**

Housekeeping Procedures

Be sure flammable material and residues are kept to a minimum and stored in covered metal receptacles. Waste materials should be disposed of daily (never pour down sewers or drains)

Keep the grounds area around buildings free of weeds, trash, or other possible combustible materials. Be sure stored materials do not block exits or stairways leading to exits.

If a container leaks, remove it to a specially designated storage room or take it to a safe location outside the building. Transfer contents safely to an undamaged container (remove ignition sources and ventilate the area before transfer) and make sure the new container is labeled identifying the substance. Be sure drums of flammable liquids have safety vents to allow release of vapors to prevent pressure buildup and rupture of the container.

Storage of Flammables:

Keep flammables away from possible sources of ignition - open flames; smoking materials; hot surfaces; static, electrical and mechanical sparks; heat-producing chemical reactions. When storing flammable liquids, prevent leaks and spills as much as possible. If any spills occur, clean up immediately.



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- a. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.
 - 1. No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one-storage cabinet.
 - 2. No more than three storage cabinets may be located in a single storage area.
- b. Inside storage rooms for flammable and combustible liquids shall be of fire-resistive construction, have self-closing fire doors at all openings, 4-inch sills or depressed floors, a ventilation system that provides at least six air changes within the room per hour, and electrical wiring and equipment approved for Class I, Division 1 locations.
- c. Storage in containers outside buildings shall not exceed 1,100 gallons in any one pile or area. The storage area shall be graded to divert possible spills away from building or other exposures, or shall be surrounded by a curb or dike. (See Section III, d. EPA Immediate Response, A, B). Storage areas shall be located at least 20 feet from building and shall be free from weeds, debris, and other combustible materials not necessary to the storage.
- d. Flammable liquids shall be kept in closed containers when not actually in use.
- e. Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas.

In every storage room, leave one clear aisle at least 2 to 3 feet wide.

Do not stack containers over 30 gallons in capacity

Use only an approved pump or self-closing faucet for dispensing

Stacked containers or packages should be separated with pallets or dunnage to provide stability and prevent stress on container walls

Store flammable liquids in ventilated tanks or containers

Flammable gases must be stored separate from all other materials – particularly oxidizing gases such as oxygen

EMERGENCY PROCEDURES:

By now you are getting the idea that handling flammables can be a dangerous business, even under the best of circumstances. And the danger can multiply dramatically in emergency situations.

What can you do if you are faced with a fire: Here are some tips:

Move containers from immediate fire area if you can do it without risk

Cool containers exposed to flames with water until well after fire is out



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If you hear a rising sound from a safety vent or see discoloration of a tank involved in a fire, it is about to explode – GET AWAY IMMEDIATELY

Know the types of extinguishers you have. Be sure they are the types needed for the materials you are using or storing

Do not use water to fight a flammable fire as a general rule; many flammable materials are water re-active and will only spread

HOT WORK – WELDING, CUTTING, BURNING

It is mandatory that all Subcontractors and Sub-subcontractors implement the following Hot Work program. Hot Work Permits shall be obtained for all work performed on-site where flame, spark or heat-producing devices are employed and a Welding Shop is not available or work cannot be moved to Welding Shop. Besides fire and explosion hazards, Hot Work may also involve health hazards to those passing by the work location as well as those performing the work.

Precautions:

When practical, objects to be welded, cut or heated shall be moved to a designated safe location or, if the objects cannot be readily moved, all fire hazards in the vicinity shall be taken to a safe place or otherwise protected.

Fire Hazards:

1. Hot Work is not permitted in sprinkled areas when the sprinklers are turned off unless approved by the Owner's Safety Department.
2. Sparks, slag and molten metal must be shielded or otherwise controlled.
3. Combustible materials must be cleared to at least a radius of 35 feet from cutting and/or welding operations or covered with fire resistant materials.
4. Sparks, slag or molten metal must be prevented from reaching combustibles or flammable materials and vapors through cracks, holes, open shafts, ducts, vessels, pipes, and etc.
5. If it is likely that combustibles may be ignited on the opposite side of metal partitions, walls, ceilings or roofs by heat conduction or radiation, a Fire Watch must be assigned to each side of the metal material.
6. If hot work is performed on walls, partitions, ceilings or roofs of combustible construction, fire resistant shields or guards shall be provided to prevent ignition of the combustible construction.
7. Accumulation of lint, debris or lubricants will be removed or swept clean before the hot work begins.
8. Sprinkler heads that could be inadvertently activated by heat will be shielded while work is performed.



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9. Hot work is not permitted for cutting into pipelines, or ductwork until it can be determined that sparks and molten metal cannot reach either combustibles or flammables through these avenues.
10. Standby fire extinguisher equipment must be provided at the jobsite and the fire watch and workers must be trained in their use.

Safeguards when Welding, Cutting and Burning:

1. Do not weld or burn in any area except as designated by Owner or in Welding Shop without instructions and written burning and welding permit (HOT WORK PERMIT) from the proper authority.
2. Only experienced persons are allowed to do any electrical or acetylene welding or burning.
3. Do not burn or weld where hot sparks, hot metal or severed sections could fall on cylinders, hoses, machinery, legs or feet or on flammable materials or where they could strike personnel working below.
4. Do not weld or burn drums, barrels, enclosed tanks or other containers without making sure that nothing flammable has been stored in them or until such tanks have been deemed safe (by filling with water or carbon dioxide) under the supervision of the Owner.
5. Never strike an arc on cylinders.
6. Never use matches to light torches. Use a spark lighter or stationary pilot flame.
7. Make sure there is plenty of fresh air when welding in closed or confined places, and never use oxygen for ventilation.
8. Do not overload welding cables operating with poor connections. Turn off cylinders and machinery when not in use and roll up cables and hoses.
9. Wear proper head (hard hat), eye and face protection when welding, and protect others from arc burns by using a shield, if possible, or by warning them to wear adequate protection. Welders must be sure that those working with them have proper head and eye protection.
10. Make welding machine ground connections directly to ground whenever possible.
11. Always refer to acetylene as "acetylene," not "gas." Refer to oxygen as "oxygen" not "air."
12. Use the cylinder for its intended purpose and nothing else.
13. Always consider a cylinder as full and handle it accordingly. Never permit cylinders to strike each other.
14. When cylinders are empty, turn them off, remove the gauges; put the protective cap on and mark them "MT" or "Empty" or tag accordingly using whatever means recommended by supplier.
15. Always transport, store and use acetylene cylinders in a vertical position to avoid loss of acetone. Cylinders must be secured at all times to prevent falling.
16. Protective caps shall be in place while transporting, moving and storing cylinders.
17. When cylinders are being hoisted, they shall be secured in a cradle.
18. Keep "empties" and "fulls" separate, use a chain across the storage racks and always tie the bottoms.
19. Full cylinders of acetylene and oxygen should be stored at least 20 feet apart or separated by a five-foot high, one half- hour fire rated barrier.



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20. Arc welding and cutting operations must be shielded by noncombustible or flameproof shields to protect employees and guests from direct arc rays.
21. When electrode holders are left unattended, the electrodes shall be removed and the holder shall be placed or protected so that they cannot make electrical contact with employees or conducting objects.
22. All arc welding and cutting cables shall be completely insulated and be capable of handling the maximum current required. There shall be no repairs or splices within 10 feet of the electrode holder, except where splices are insulated equal to the insulation of the cable.

Procedures for obtaining a Hot Work Permit:

Before any Hot Work is accomplished a permit must be obtained and posted at the area where work is being performed. The following procedures must be followed:

1. Subcontractor planning the Hot Work where flame, spark or heat-producing devices will be employed must notify HW Davis at least 24 hours before work is scheduled to take place. HWD will furnish Subcontractor the proper permit application, notify the Owner's Representative and schedule the Walk-Thru Inspection. It will be the responsibility of the Subcontractor initiating the permit to furnish safety equipment and/or precautions beyond what the Owner may already have in place.
2. Subcontractor will complete Items 2 thru 9 and return the application to HWD with mandatory Welding Certification. If the individual performing the Hot Work is employed by a company other than the Subcontractor initiating the permit, a Certificate of Insurance showing General Liability coverage must be submitted.
3. Permit application will not be processed without the proper certification and evidence of insurance when applicable.
4. **Fire Watch is mandatory.** Sub-Contractors are responsible to designate a qualified person to perform the Fire Watch duties (25). The designated person must date and sign the application acknowledging the assignment. Subcontractor or HWD Field Superintendent or
5. Project Manager (or otherwise qualified person) may be designated as Fire Watch; however, the person performing Hot Work shall not be designated. **Fire Watch must remain at the site a minimum of one hour after work is complete.**
6. H W Davis Field Superintendent and/or Project Manager, Fire Watch Designee, Owner's Representative and Subcontractor will then perform the Safety Inspection items 10 through 24. All items must be initialed by all except the Fire Watch Designee.
7. HW Davis Field Superintendent or Project Manager (26) must print his/her name and sign application.
8. The Owner's Representative (27) must print and sign his/her name, enter the date and time approved.
9. The original permit must be posted at the worksite with H W Davis Field Superintendent or otherwise authorized personnel present for all work.
10. Work must commence before the end of the shift on the date Owner's Representative entered on (27a) and within 8 hours after time of Owner's approval (27b). If work is not performed in the time specified, the permit is void and hot work must be cancelled and a new permit initiated and approved following the same procedure as stated above.



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Completing the Application: (Initiating Subcontractor completes Items 2 thru 9)

1. Submitted to (Owner's Construction Manager): H W Davis to complete this portion. Subcontractor to leave blank.
2. Project: Enter name of project
3. Request Initiated by: Enter the name of the Subcontractor working for HW Davis requiring the welding, cutting or heating. Contact Name and phone number is required.
4. Date work to be performed: Enter the *actual* date work is to be *accomplished* and
5. the *time* making sure to indicate *am or pm*.
6. Building / Location: Enter the building number or address and detail the exact location within that building or indicate which side of building if work is being performed outside.
7. Work to be Performed: Be very specific on what is being done and what existing conditions are involved (i.e., Is work being performed in a wall? Over other work areas?)
8. Enter the name of the individual performing the hot work and attach a copy of his/her certification. The application will not be processed without this certification.
9. Indicate if the person performing the Hot Work is or is not an employee of the Subcontractor (See 3 above). If not, (9a) enter the company name (if applicable) and attach a copy of certificate of insurance evidencing General Liability coverage.

Submit application to HW Davis. The inspection will then be scheduled immediately prior of the same shift in which the work is planned. Representatives from HW Davis, Owner, and Subcontractor, Fire Watch Designee and the individual performing the Hot Work are required to attend (the individual performing the Hot Work cannot act as the Subcontractor's representative). The permit will then be executed by Owner's Representative at conclusion of the inspection and Hot Work can proceed at the designated time.



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HEALTH & SAFETY PLAN

PERSONAL PROTECTION EQUIPMENT PROGRAM

This written program documents HW Davis's commitment to minimize injury resulting from various occupational hazards present at our jobsites by protecting workers through the use of PPE when hazards cannot be eliminated.

The Safety Manager will work with Project Managers and Superintendents to assist in training employees and monitoring their use of PPE. This program will be reviewed annually and updated as necessary by the Safety and Human Resource Managers.

HW Davis believes it is our obligation to provide a hazard free environment to our employees. Any employee encountering hazardous conditions must be protected against the potential hazards.

Establishing an overall written program detailing how employees use PPE makes it easier to ensure that they use PPE properly in the workplace and document our PPE efforts in the event of an OSHA inspection. HW Davis program covers:

- Purpose
- Hazard assessment
- PPE selection
- Employee Training
- Cleaning and maintenance of PPE
- PPE specific information

If after reviewing this program you find improvements can be made please contact your Safety or Human Resource Officer. We encourage all suggestions because we are committed to the success of our Personal Protection Equipment Program. We strive for clear understanding, safe behavior, and involvement in the program from every level of the company.

Visitors will be provided the proper PPE if they are on a job site for observation. Vendors, employees from temporary work agencies, and sub-contractors are required to comply with company PPE policies.

Because failure to comply with company policy concerning PPE can result in OSHA citations and fines as well as employee injury, an employee who does not comply with this program will be disciplined accordingly and issued a safety citation. Repeated infractions or failure to comply could result in disciplinary action up to and including discharge.

All Supervisors are responsible for ensuring employees under their direction are in compliance with this policy.



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A. PURPOSE OF PROGRAM

The basic element of any PPE program is an in-depth initial hazard assessment of the equipment needed to protect against the hazards at the workplace. Two basic objectives of any PPE program should be to protect the wearer from incorrect use and/or malfunction of PPE. The purpose of this Personal Protective Equipment Program is to document the hazard assessment, protective measures in place, and PPE in use at this company. PPE devices are not to be relied upon as the only means to provide protection against hazards, but are used in conjunction with guards, engineering controls, and sound operating practices. If possible, hazards will be abated first through engineering controls, with PPE to provide against hazards that cannot reasonably be abated otherwise.

B. HAZARD ASSESSMENT

As a requirement, H W Davis Construction, Inc. will assess the workplace to determine if hazards that require the use of PPE are present or are likely to be present. If hazards or the likelihood of hazards are found, H W Davis Construction, Inc. will select and have affected employee's use properly fitted PPE suitable for protection from the existing hazards. In order to assess the need for PPE the following steps are taken:

1. Identify job classifications where exposures occur or could occur. Safety, should as part of this hazard assessment, review injury and illness records in order to determine historical hazards within the operation.
2. The Safety Officer should conduct walk through surveys of both fixed facilities and remote jobsites where hazards exist to identify sources of hazards to employees. These basic hazard categories should be considered when conducting hazard assessments:
 - a. Caught between/ Struck by
 - b. Fall hazards
 - c. Electrical hazards
 - d. Respiratory hazards
 - e. Noise hazards
 - f. Extremes in temperatures
 - g. Hazardous substances
 - h. Roadway exposures
 - i. Equipment/machinery hazards
 - j. Roadway hazards
3. Following the initial walk through survey, Safety should organize the data and use the information for selection of proper personal protection equipment.
4. HW Davis will provide site specific safety and PPE assessments to comply with contract requirements.



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A. Appendix B. OSHA has provided a non-mandatory Appendix B to 1910.132 which provides examples of procedures that would comply with the requirement for a hazard assessment.

B. Certification. H W Davis Construction, Inc. shall verify that the required workplace hazard assessment has been performed through a written certification that contains the following:

1. The name or description of the workplace evaluated.
2. The name of the person certifying that the evaluation was done.
3. The date(s) of the hazard assessment.
4. Identification of the document as a hazard assessment certification.

C. SELECTION GUIDELINES

Once any hazards have been identified and evaluated through the hazard assessment process, the general procedure for selecting protective equipment is to:

1. Become familiar with the potential hazards and the type of protective equipment (PPE) that are available, and what they can do.
2. Compare types of equipment to the hazards associated with the environment
3. Select the PPE that ensures a level of protection greater than the minimum required to protect employees from the hazards.
4. Fit the user with proper, comfortable, well-fitting protection and instruct employees on care and use of the PPE. It is very important that the users are aware of all warning labels for and limitations of their PPE.

It is the responsibility of Supervisors with the assistance from Safety, to reassess the workplace hazard situation as necessary, to identify and evaluate new equipment and processes, to review accident records, and reevaluate the suitability of previously selected PPE. It is the responsibility of Supervisors to keep Safety apprised of any significant problems with existing PPE or the need for additional PPE should new operations present previously un-recognized hazards.

Defective and Damaged Equipment

Defective or damaged PPE shall not be used.

D. EMPLOYEE TRAINING

Safety and/or Supervisors are responsible for providing training for each employee who is required to use personal protective equipment. PPE training should include:

- When PPE is necessary
- What PPE is necessary
- How to wear assigned PPE
- Limitations of PPE
- Proper care, maintenance, useful life, and disposal of assigned PPE



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Employees must demonstrate an understanding of the training and the ability to use the PPE properly before they are allowed to perform work requiring the use of the equipment.

Employees are prohibited from performing work without donning appropriate PPE to protect them from hazards that they will encounter in the course of that work.

If the Safety Officer or other supervisory personnel has reason to believe an employee does not have the understanding or skill required to effectively use PPE, the employee must be retrained. Circumstances where retraining may be required include changes in the workplace or changes in the types of PPE to be used, which would render previous training obsolete.

The Safety Officer or Supervisor shall certify in writing that the employee has received and understands the PPE training.

Retraining. When H W Davis Construction, Inc., safety manager or jobsite supervisor has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by the PPE standard, the safety manager or jobsite supervisor shall retrain each such employee. Circumstances requiring retraining include, but are not limited to, situations where:

1. Changes in the workplace render the previous training obsolete.
2. Changes in the types of PPE to be used render the previous training obsolete.
3. Inadequacies in an affected employee's knowledge or use of the assigned PPE indicate that the employee has not retained the requisite understanding or skill.

Payment for PPE

A. General Rule. All PPE required by this standard will be provided by H W Davis Construction, Inc. at no cost to employees.

B. Exception. H W Davis Construction, Inc. is not required to pay for safety-toe protective footwear, or for prescription safety eyewear.

E. CATEGORIES OF PROTECTION:

Eye Protective Equipment include:

- Spectacles
- Face shields
- Goggles
- Welding masks and helmets

Eye Protection

Any employee subject to injury to the face or eyes will use eye and face protection and shall meet requirements specified in ANSI Z87.1-1968

Industrial and Construction eye protection differs greatly from eyewear designed for general usage. These differences include passing the lens impact test, lens thickness and shape



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requirements and sturdy frame construction. Therefore general use glasses will not protect the eyes from the hazards that may occur and are not approved for construction wear. Contact lenses do not provide adequate eye protection, may cause additional safety concerns and therefore should not be worn.

The American National Standards Institute (ANSI) standard "Personnel Protection" (Z87.1) is a comprehensive document which sets protective equipment performance standards, including detailed tests, for a broad area of hazards.

Physical hazards are common things like metal particles from grinding, wood splinters from wood-working, and so forth, that may be driven into the eye by force or enter the eye by accident. A blow to the eye is also a physical hazard. Here again, the protection is meant to prevent the physical object or force from reaching the eye. The first line of defense here is always to wear well-fitting safety glasses, usually with side shields when on the job. Sometimes additional protection, like goggles or a face shield may also be appropriate.

*Fifty percent of on-the-job injuries are "foreign matter in eye" stemming from merely sweeping the floor to small particles falling from an acoustical ceiling tile

Chemical hazards are substances that injure the eye by chemical reaction. Most often these are liquid hazards, like corrosive acids or caustic substances that can burn the eyes if splashed into the face. Some gases like ammonia and reactive mists or dusts can also injure the eyes by chemical means. Protection against these hazards involves the use of eye protection that prevents the hazardous chemical from reaching the eye. These include chemical splash goggles, and face shields in combination with safety glasses. In cases of corrosive gases, like ammonia, full face self-contained breathing apparatus (SCBA) masks may be used to provide protection both for breathing and the eyes.

Radiation hazards are types of light that can cause eye damage. A nasty side of radiation damage is that usually the damage causes no immediate pain, thus the victim has little warning of the injury. Sources of radiation hazards include ultraviolet (UV) light from lamps or are welding; infrared (IR) light or heat radiation from hot materials, and intense visible and invisible light from laser beams. UV and IR light can be both acutely and chronically hazardous to the eyes. The common "welder's flash" is a UV sunburn to the outer surface of the eyes. Both UV and IR can cause long term eye damage including clouding of the lens (cataracts). Depending upon the color, or wavelength, of light produced, lasers can cause damage to any part of the eye. One problem with visible light lasers is the possibility of burns to the retina. The retina is the inner rear part of the eye where light is converted into nerve impulses. Protection against radiation hazards requires the use of eye protection specific for the type and intensity of the radiation. Devices include welding hoods, tinted goggles or specific safety spectacles.

Safety eye protection must be fitted properly. Not everyone can wear the same size glasses or goggles. If you require corrective lenses, wear prescription safety glasses. Leading optical companies offer corrective prescription services.

Seventy percent of eye injuries happen to people who are wearing no eye protection, and 94 percent of the rest of eye injuries happen to people who are wearing the wrong kind of eye



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protection. So, follow the guidelines that specify the use of eye protection, and correct yours accordingly. Keep your protection the entire time you are in the hazardous area.

Head Protection

Hard hat (aka helmet) Personnel working in areas where there is a possible danger of head injury from impact, or from falling objects, or from electrical shock and burns shall be protected by protective helmets. This will be interpreted as all areas within the property in which H W Davis is performing work. This includes, but is not limited to, construction areas, excavations, confined spaces, and some catwalk areas.

Helmets for the protection of personnel against impact and penetration of falling and flying objects shall meet the specifications contained in the American National Standards Institute, ANSI 241.1.

The contractor's / subcontractor's at all levels of supervision will be held responsible for seeing that workers wear proper protective equipment and that it is kept in good repair.

Paint or cleaning materials should not be applied to hard hats, some paints and thinners may damage the shell and reduce protection by physically weakening it or negating electrical resistance. Stickers made of metallic materials must not be placed on hard hats that are used for electrical protection. Paint and excessive stickers can also hide cracks and imperfections.

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

Make sure your hardhat fits right and the suspension is adjusted properly.

Class A helmets, in addition to impact and penetration resistance, provide electrical protection from low-voltage conductors (proof tested to 2,200 volts).

Class B helmets, in addition to impact and penetration resistance; provide electrical protection from high-voltage conductors (proof tested to 20,000 volts).

Class C helmets provide impact and penetration resistance and are usually made of aluminum (which conducts electricity) and should NOT be used around electrical hazards.

Some examples of where falling object hazards are present are:

- Working below other workers who are using tools and materials which could fall;
- Working around or under conveyor belts carrying parts or materials;
- Working below machinery or processes which might cause material or objects to fall;
- Working on exposed energized conductors;



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Hand Protection

Gloves Employees in the following work are required to wear gloves:

Rebar work

Grinding

Welding

Blade Sharpening

Chemical application

Cutting metals

At all times when exposed to bloodborne pathogens.

Other operations as determined by the supervisor.

****IMPORTANT****

- HW Davis employees should never handle needles.
- Take off rings, watches and bracelets before starting work.
- Use gloves that are appropriate for your work.

Gloves prevent cuts, abrasions, burns and skin contact with chemicals. While no one glove provides protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals, 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.

Foot Protection

Safety Construction Boots

- a. Look for the ANSI-Z41 label inside your safety footwear to insure the shoes or boots meet recognized safety standards.
- b. Have your safety footwear fitted by an expert for proper fit and comfort.
- c. Ankle high Boots are recommended due to the support feature they offer.
- d. Boots that are ripped, torn, or have worn out soles are to be replaced.
- e. Always keep laces tied and secured to avoid trip hazards.

Hearing Protection

Hearing protection must be worn when there is a possibility of hearing damage, which can occur during continuous exposure to noise or impulse exposure to loud impact noises. Employees must wear proper protective devices at all times when using all powered equipment. Proper ear protection may consist of the following: Earmuffs, earplugs, molded ear protectors, or wax plugs. Plain cotton is not acceptable. Ear protective devices must be worn properly to provide the required protection and kept clean to reduce the possibility of ear infection.

It is further the policy of HW Davis Construction, Inc. that as a condition of employment, all regular full time and part time employee's working in environment's determined to present a



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reasonable expectation of potentially harmful levels of noise. Hearing protection shall comply with ANSI S3.19-1974 and shall be of a type that provides a NRR (Noise Reduction Rating) appropriate to the potential noise hazard.

Noise Protection

An excessively loud environment is not only annoying; it also reduces efficiency, causes stress and can cause irreparable damage to hearing. Hearing loss due to noise exposure is a permanent, disabling condition. Fortunately, through the use of proper ear protection, noise induced hearing loss (NIHL) can be reduced or even completely eliminated.

In the United States alone, about 20 million people are affected by NIHL from their jobs. NIHL has several causes. Common causes include chronic noise exposure, injury to the ear from a blow to the head, explosive noises, rapid pressure changes and ear infection.

For people with NIHL, sounds, music and conversation sound flat. Higher pitched voices, like women and children, become much harder to understand because of this distortion. Another problem that occurs with persons with NIHL is something called the "cocktail party effect." People with NIHL have real difficulty hearing a conversation against background noise.

Employees must take the responsibility for hearing protection by wearing their hearing protection correctly at all times, seeking replacements as necessary and communicating problems to their supervisors.

Long-term exposure to noise can damage your hearing. Even exposure to loud noise over short periods can sometimes cause temporary hearing loss. Temporary hearing loss can become permanent if the noise exposure continues.

Reducing the length of time you are exposed to noise can also reduce the risk.

Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in Table D-2 of the Safety and Health Standards.

When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear protection devices shall be provided and used.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

In all cases where the sound levels exceed the values shown in Table D-2, a continuing effective hearing conservation program shall be administered.

Plain cotton is not an acceptable hearing protective device.

Hearing protection is mandatory at all times when engaged in operations using power equipment.



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Types of Ear Protection:

Ear plugs

Canal Caps

Ear muffs

Earplugs:

Earplugs reduce noise when properly fitted in the outer part of the ear canal. There are three kinds:

- a. Formable Earplugs fit all ears. They may be made of waxed cotton or acoustical fibers and thrown away after one use (disposable) or made of molded sponge or foam material (semi-disposable). The semi-disposable earplugs are rolled tightly and inserted into the ear canal. The plug expands to fit and can be used for up to one week.
- b. Pre-molded Earplugs are reusable and are available in multi-size types.
- c. Custom-molded Earplugs are molded to the exact shape of the ear.

Canal Caps:

Canal caps close off the ear canals at the opening. Caps are made of a soft, rubberlike substance. Canal caps are effective protection for many jobs. They're a possible choice for people who can't wear earplugs and are useful for people who enter and leave high noise areas frequently.

Earmuffs:

Earmuffs fit over the whole ear to seal out noise. Earmuffs can protect against severe, high frequency noise and are recommended for people who can't use earplugs.



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Table D-2

DECIBELS

Rocket launching pad

Jet plane

Gunshot blast

Riveting steel tank

Automobile horn

Sandblasting

Woodworking shop

Punch press

Pneumatic drill

Boiler shop

Hydraulic press

Can manufacturing plant

Subway

Average factory

Computer card verifier

Noisy restaurant

Office tabulator

Busy traffic

Conversational speech

Average home

Quiet office

Soft whisper

180

140

140

130

120

112

100

100

100

100

100

100

90

80-90

85

80

80

75

66

50

40

30

**Noises over
140 dB may
cause PAIN**

CONTINUED EXPOSURE to
**noises over 90 dB during the
average workday may
eventually harm hearing.**

Depending on individual
sensitivity, length of
exposure, etc., lower noise
levels may affect hearing in
some people.

Measuring noise exposure
requires the use of
complex measuring
instruments.

Safety (warning) Vests

Employees working in the following areas are required to wear ANSI Class 2 safety vests if less than 50 mph and Class 3 safety vests if greater than 50 mph, while engaged in the following outdoor operations:

- Near or on Roadways
- Medians
- Parking lots
- Surveying
- Flagging
- Utility work



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VEHICULAR SAFETY

A. Vehicle Operation:

- a. Drive on graded roadways that have been leveled for this purpose.
- b. Turn on low-beam headlights when driving on site.
- c. Hold onto vehicle when stepping out of it onto loose gravel, or uneven ground, holes or rocks. Maintain a 3-point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicle.
- d. Tools and materials shall be secured to prevent movement when transported in the same compartment with employees.
- e. Do not exceed the maximum number of people for which the vehicle is designed to transport.

Do not operate a loaded vehicle or load it, by means of cranes, power shovels, loaders or similar equipment, if the vehicle does not have a cab shield and/or canopy to protect you from shifting or falling materials.

...and Never transport employees in the back of trucks

B. Vehicle Fueling:

- a. Turn the vehicle off before fueling.
- b. Do not smoke while fueling a vehicle.
- c. **Turn off cell phone or leave in vehicle.**
- d. Wash hands with soap and water if you spill gasoline on them.
- e. Do not carry extra fuel on any vehicle except in a properly mounted fuel tank or container designed for that purpose.



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FALL PROTECTION PROGRAM

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I. OBJECTIVE

The objective of the H W Davis Construction, Inc. Fall Protection Program is to identify and evaluate fall hazards to which employees will be exposed, and to provide specific training as required by the Occupational Safety and Health Administration (OSHA) Fall Protection Standard, 29 CFR 1926, Subpart M.

Reasonable fall prevention protection shall be provided to protect personnel from accidental falls associated with floors, platforms, scaffolds, guardrails, physical barriers and elevated work locations. Standard guardrails including a top rail 42 inches above floor level with a mid-rail and 4 inch toe board shall be provided to protect employees from falls when working at levels over 4 feet no matter what the work being performed.

HWD, (Subcontractors and Sub-subcontractors are) is responsible to provide all equipment and devices and to ensure that all employees required to wear approved fall protection devices be properly trained concerning the need for and purpose of the protection. Also, they must be instructed in the proper use of the equipment and shall demonstrate that they know, understand, and can use the fall protection devices properly.

II. POLICY

It is the policy of H W Davis Construction, Inc. to protect its employees from occupational injuries by implementing and enforcing safe work practices and appointing a competent person(s) to manage the Fall Protection Program. The H W Davis Construction, Inc. shall comply with the OSHA requirements. A copy of the OSHA Fall Protection Standard shall be made available to all employees, and may be obtained from a Supervisor.

III. ASSIGNMENT OF RESPONSIBILITY

A. EMPLOYER

It is the responsibility of H W Davis Construction, Inc. to provide fall protection to affected employees, and to ensure that all employees understand and adhere to the procedures of this plan and follow the instructions of the onsite Supervisor.

B. PROGRAM MANAGER/SUPERVISOR

It is the responsibility of the Safety Program Manager as the Fall Protection Program Manager to implement this program by:

1. Performing routine safety checks of work operations;
2. Enforcing H W Davis Construction, Inc. safety policy and procedures;
3. Correcting any unsafe practices or conditions immediately;



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4. Training employees and supervisors in recognizing fall hazards and the use of fall protection systems;
5. Maintaining records of the employee training, equipment issue, and fall protection systems used at H W Davis Construction, Inc. jobsites; and
6. Investigating and documenting all incidents that result in employee injury.

C. EMPLOYEES

It is the responsibility of all employees to:

1. Understand and adhere to the procedures outlined in this Fall Protection Program;
2. Follow the instructions of the program manager/supervisor;
3. Bring to management's attention any unsafe or hazardous condition or practices that may cause injury to either themselves or any other employees; and
4. Report any incident that causes injury to an employee, regardless of the nature of the injury.

IV. TRAINING

- A. All employees who may be exposed to fall hazards are required to receive training on how to recognize such hazards, and how to minimize their exposure to them. H W Davis Construction Employees will receive training as soon after employment as possible. And before they are required to work in areas where fall hazards exist.
- B. A record of H W Davis Construction employees who have received training and training dates will be maintained by the Safety Program Manager.

Training of employees by Program Manager shall include:

1. Nature of the fall hazards employees may be exposed to.
2. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
3. Use and operation of controlled access zones, guardrails, personal fall arrest systems, safety nets, warning lines, and safety monitoring systems.
4. Role of each employee in the Safety Monitoring System.
5. Limitations of the use of mechanical equipment during roofing work on low-slope roofs (if applicable).
6. Correct procedures for equipment and materials handling, and storage and erection of overhead protection.



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7. Role of each employee in alternative Fall Protection Plans.
 8. Requirements of the OSHA Fall Protection Standard, 29 CFR 1926 Subpart M.
 9. H W Davis Construction requirements for reporting incidents that cause injury to an employee.
- C. Additional training and re-training will be provided on an annual basis, or as needed when changes are made to this Fall Protection Standard.
- a. And it is determined that H W Davis Construction employees already trained do not have the necessary understanding or ability or skill; or
 - b. When work place changes; or
 - c. The fall protection systems or equipment changes that render previous training obsolete.

NOTE: All training and retraining will be documented in accordance with §1926.503 and maintained in the Safety office where all certifications are kept.

V. CONTROLLED ACCESS ZONES

- A. Masons are the only authorized employees permitted to enter controlled access zones and areas from which guardrails have been removed. All other workers are prohibited from entering controlled access zones.
- B. Controlled access zones shall be defined by control lines consisting of ropes, wires, tapes, or equivalent material, with supporting stanchions, and shall be:
1. Flagged with a high-visibility material at size (6) foot intervals.
 2. Rigged and supported so that the line is between 30 and 50 inches (including sag) from the walking/working surface.
 3. Strong enough to sustain stress of at least 200 pounds.
 4. Extended along the entire length of an unprotected or leading edge.
 5. Parallel to the unprotected or leading edge.
 6. Connected on each side to a guardrail system or wall.
 7. Erected between six (6) feet and 25 feet from an unprotected edge, except in the following cases:
 - a. When working with precast concrete members: between six (6) feet and 60 feet from the leading edge, or half the length of the member being erected, whichever is less; or
 - b. When performing overhand bricking or related work: between ten (10) feet and 15 feet from the working edge.



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VI. EXCAVATIONS

Fall protection will be provided to employees working at the edge of an excavation that is six (6) feet or deeper. Employees in these areas are required to use the fall protection systems as designated in this program.

- A. Excavations that are six (6) feet or deeper shall be protected by guardrail systems, fences, barricades, or covers.
- B. Walkways that allow employees to cross over an excavation that is six (6) feet or deeper shall be equipped with guardrails.

VII. FALL PROTECTION SYSTEMS

A. Covers

- 1. All covers shall be secured to prevent accidental displacement.
- 2. Covers shall be color-coded or bear the markings "HOLE" or "COVER".
- 3. Covers located in roadways shall be able to support twice the axle load of the largest vehicle that might cross them.
- 4. Covers shall be able to support twice the weight of employees, equipment, and materials that might cross them.

B. Guardrail Systems

Guardrail systems shall be erected at unprotected edges, ramps, runways, or holes where it is determined by jobsite Supervisor that erecting such systems will not cause an increased hazard to employees. The following specifications will be followed in the erection of guardrail systems. Toprails shall be:

- 1. At least ¼ inch in diameter (steel or plastic banding is unacceptable);
- 2. Flagged every six (6) feet or less with a high visibility material if wire rope is used.
- 3. Inspected by jobsite Supervisor as frequently as necessary to ensure strength and stability;
- 4. Forty-two (42) inches (plus or minus three (3) inches) above the walking/working level; and
- 5. Adjusted to accommodate the height of stilts, if they are in use.

Midrails, screens, mesh, intermediate vertical members, and solid panels shall be erected in accordance with the OSHA Fall Protection Standard.

Gates or removable guardrail sections shall be placed across openings of hoisting areas or holes when they are not in use to prevent access.



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C. Personal Fall Arrest Systems

1. Personal fall arrest systems shall be issued to and used by employees as determined by onsite Supervisor and may consist of anchorage, connectors, body harness, deceleration device, lifeline, or suitable combinations. Personal fall arrest systems shall:
 - a. Limit the maximum arresting force to 1800 pounds;
 - b. Be rigged so an employee cannot free fall more than six (6) feet or contact any lower level;
 - c. Bring an employee to a complete stop and limit the maximum deceleration distance traveled to three and a half (3 ½) feet;
 - d. Be strong enough to withstand twice the potential impact energy of an employee free falling six (6) feet (or the free fall distance permitted by the system, which is less);
 - e. Be inspected prior to each use for damage and deterioration; and
 - f. Be removed from service if any damaged components are detected.
2. All components of a fall arrest system shall meet the specifications of the OSHA Fall Protection Standard, and shall be used in accordance with the manufacturer's instructions.
 - a. The use of non-locking snaphooks is prohibited;
 - b. Dee-rings and locking snaphooks shall:
 - i. Have a minimum tensile strength of 5000 pounds; and
 - ii. Be proof-tested to a minimum tensile load of 3600 pounds without cracking, breaking, or suffering permanent deformation.
 - c. Lifelines shall be:
 - i. Designed, installed, and used under the supervision of onsite Supervisor
 - ii. Protected against cuts and abrasions; and
 - iii. Equipped with horizontal lifeline connection devices capable of locking in both directions on the lifeline when used on suspended scaffolds or similar work platforms that have horizontal lifelines that may become vertical lifelines.
 - d. Self-retracting lifelines and lanyards must have ropes and straps (webbing) made of synthetic fibers, and shall:



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- i. Sustain a minimum tensile load of 3600 pounds if they automatically limit free fall distance to two (2) feet; or
 - ii. Sustain a minimum tensile load of 5000 pounds (includes ripstitch, tearing, and deforming lanyards).
- e. Anchorages must support at least 5000 pounds per person attached and shall be:
 - i. Designed, installed, and used under the supervision of a jobsite Supervisor.
 - ii. Capable of supporting twice the weight expected to be imposed on it; and
 - iii. Independent of any anchorage used to support or suspend platforms.

D. Positioning Device Systems

Body belt or body harness systems shall be set up so that an employee can free fall no farther than two (2) feet, and shall be secured to an anchorage capable of supporting twice the potential impact load of 3000 pounds, whichever is greater. Requirements for snaphooks, dee-rings, and other connectors are the same as detailed in this Program under *Personal Fall Arrest Systems*.

E. Safety Monitoring Systems

In situations when no other fall protection has been implemented, jobsite Supervisor shall monitor the safety of employees in these work areas. The jobsite Supervisor shall be:

1. Competent in the recognition of fall hazards;
2. Capable of warning workers of fall hazards dangers;
3. Operating on the same walking/working surfaces as the employees and able to see them;
4. Close enough to work operations to communicate orally with employees; and
5. Free of other job duties that might distract them from monitoring function.

No employees other than those engaged in the work being performed under the Safety Monitoring System shall be allowed in the area. All employees under a Safety Monitoring System are required to promptly comply with the fall hazard warnings of the Jobsite Supervisor.



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F. Safety Net Systems

1. Safety net systems must be installed no more than 30 feet below the walking/working surface with sufficient clearance to prevent contact with the surface below, and shall be installed with sufficient vertical and horizontal distances as described in the OSHA Fall Protection Standard.
2. All nets shall be inspected at least once a week for wear, damage, or deterioration by Jobsite Supervisor. Defective nets shall be removed from use and replaced with acceptable nets.
3. All nets shall be in compliance with mesh, mesh crossing, border rope, and connection specifications as described in the OSHA Fall Protection Standard.
4. When nets are used on bridges, the potential fall area from the walking/working surface shall remain unobstructed.
5. Objects that have fallen into safety nets shall be removed as soon as possible and at least before the next working shift.

G. Warning Line Systems

Warning line systems consisting of supporting stanchions and ropes, wires, or chains shall be erected around all sides of roof work areas.

1. Lines shall be flagged at no more than six (6) foot intervals with high-visibility materials.
2. The lowest point of the line (including sag) shall be between 34 and 39 inches from the walking/working surface.
3. Stanchions of warning line systems shall be capable of resisting at least 16 pounds of force.
4. Ropes, wires, or chains must have a minimum tensile strength of 500 pounds.
5. Warning line systems shall be erected at least six (6) feet from the edge, except in areas where mechanical equipment is in use. When mechanical equipment is in use, warning line systems shall be erected at least six (6) feet from the parallel edge, and at least ten (10) feet from the perpendicular edge.



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H. Rescue

In the event of a fall H W Davis Construction Supervisor will provide prompt rescue of employees and/or will assure that employees are able to rescue themselves.

VIII. SCAFFOLDING:

A fall prevention and protection program shall be used to protect employees. Jobs must not be performed until these conditions have been met:

- a. Guardrails (standard) provided to protect employees from falls from work locations above 6 feet, or Employees provided with approved personal fall protection devices and properly trained concerning the correct use, and Supervisors ensure that the required devices are being used.
- b. Each scaffold should be designed to support four times the maximum load which is carried. Inspect the scaffold before you use it.
- c. Scaffold planks must be tested, carefully erected and made secure to prevent slipping by using cleats, tying or wiring or should overlap a minimum of 12 inches. All planking shall be scaffold grade.
- d. Guardrails and toe boards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor. Scaffolds 4 feet to 10 feet in height, having a minimum dimension in either direction of less than 45 inches, shall have guardrails installed on all open sides and ends of the platform.
- e. Guardrails shall be two by four inches (2" x 4") or the equivalent, approximately 42 inches high, with a mid-rail. Supports shall be at intervals not to exceed 8 feet. Toe boards shall be a minimum of 4 inches in height.
- f. There is no such thing as a temporary scaffold.
- g. Ladders should be attached for ascent and descent on scaffolds.
- h. Any defects, loose knots or cracks in a scaffold plank will make that plank useless. Do not use it.
- i. Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened from any cause shall be immediately repaired or replaced.
- j. Screens shall be used between the toe board and the guardrail when persons are required to work or pass under the scaffold.

A. Employee's Guidelines:

1. Follow the manufacturer's instructions when erecting the scaffold.
2. Do not work on scaffolds outside during stormy or windy weather.
3. Do not climb on scaffolds that wobble or lean to one side.
4. Initially inspect the scaffold prior to mounting it. Do not use a scaffold if any pulley, block, hook or fitting is visibly worn, cracked, rusted or otherwise damaged.
5. Do not use a scaffold if any rope is frayed, torn or visibly damaged.
6. Do not use any scaffold tagged "Out of Service" and do not remove the tag.



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7. Do not use unstable objects such as barrels, boxes, loose brick or concrete blocks to support scaffolds or planks.
8. Do not use a scaffold unless guardrails, toe boards and all flooring are in place.
9. Level the scaffold after each move. Do not extend adjusting leg screws more than 12".
10. Do not ride on scaffold during the move.
11. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the mid rail and the toe board or planking.
12. Ensure the scaffold is close enough to the working surface to prevent falling between the scaffold and work surface.
13. Do not work on platforms or scaffolds unless they are fully planked

B. Vehicle Mounted Platforms (Self-Propelled Scissor Lift and articulating booms)

1. Only authorized and trained operators may operate.
2. Do not overload the platform; know the rated capacity.
3. Do not operate on soft or uneven surfaces or slopes in excess of five degrees.
4. Do not operate when the wind velocity exceeds 25 mph.
5. Do not tow the scissors unless equipped with option for towing (5MPH maximum)
6. Do not jerk controls. Operate smoothly and deliberately into and out of movements.
7. Do not move lever across neutral without stopping.
8. Do not sit or climb on platform railing. Keep both feet on the platform at all times. Always wear fall protection on articulating platforms even when equipped with railing.
9. Do not allow overhanging loads on the work platform.
10. Do not use ladders, planks or other devices to extend or increase work position from platform.
11. Do not operate machinery that is malfunctioning.
12. Do not make any modification to equipment without prior written consent of the manufacturer.
13. This is a non-insulated aerial work platform. Do not operate within 10 feet of energized electrical conductors.
14. Never use the boom as a ram to push with, or as a jack to raise the wheels of the equipment.
15. Do not use for any other purpose than to position personnel and their tools or equipment. The platforms are not designed for use as a crane.

C. Ladders: (USF 5.9.11)

1. Select the right ladder for the job. Do not use a ladder that is too long or too short. Do not splice two ladders together. Do not use lightweight or household ladders in a heavy construction job. Do not use metal ladders near electrical circuits, fixtures or power lines.



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2. Check condition of ladder for cracked or split side rails; for missing or broken stops, cleats, rungs, treads or U-shapes; for sharp edges or splinters; for general weakened condition. If any of the above conditions exist, withdraw the ladder from use and fix it at once, if possible. If it cannot be fixed, destroy it.
3. Use ladder safety. Place it with care; do not lean it against a moveable object. Make sure it is not placed on a loose object or uneven footing. Do not place it too close to a wall. The horizontal distance from the wall to the foot of the ladder should never be less than four feet per one foot of length and it should extend at least 36 inches above the upper horizontal edge. Tie ladder with rope or wire. If wire is used, be careful to protect users from puncture.
4. Only one person at a time shall be permitted on a ladder.
5. Always face the ladder and grasp the side rails or rungs with both hands when ascending or descending.
6. Do not carry tools or material when going up or down ladders. Use a bucket or canvas bag on a rope to haul or lower them.
7. Be sure the soles of your shoes are free from dirt, oil and mud before using a ladder.
8. Never work above the second rung from the top of a ladder. Do not straddle a ladder.
9. Stepladders should not be over 20 feet long. Do not stand on the top step. Be sure to lock the spreader. Do not use rope or chain spreaders. Do not use a stepladder as a straight ladder.
10. Job-made ladders must be constructed for their intended use. Cleats shall be inset into side rails $\frac{1}{2}$ inch, or filler blocks used. Cleats must be uniformly spaced at 12 inches.

IX. TASK AND WORK AREA REQUIRING FALL PROTECTION

Unless otherwise specified, jobsite Supervisor will evaluate the worksite(s) and determine the specific type(s) of fall protection to be used in the follow situations.

A. Framework and Reinforcing Steel

Fall protection will be provided when an employee is climbing or moving at a height of over 24 feet when working with rebar assemblies.

B. Hoist Areas

Guardrail systems or personal fall arrest systems will be used in hoist areas when an employee may fall six (6) feet or more. If guardrail systems must be removed for hoisting, employees are required to use personal fall arrest systems.

C. Holes

Covers or guardrail systems will be erected around holes (including skylights) that are six (6) feet or more above lower levels. If covers or guardrail systems must be removed employees are required to use personal fall arrest systems.

D. Leading Edges

Guardrail systems, safety net systems, or personal fall arrest systems will be used when employees are constructing a leading edge that is six (6) feet or more above lower levels. An alternative Fall Protection Plan will be used if jobsite Supervisor determines that the implementation of conventional fall



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protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for work on leading edges will:

1. Be written specific to the particular jobsite needs;
2. Include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
3. Explain what alternative fall protection will be used for each task;
4. Be maintained in writing at the jobsite by H W Davis Construction jobsite supervisor; and
5. Meet the requirements of 29 CFR 1926.502(k)

E. Overhand Bricklaying and Related Work

Guardrail systems, safety net systems, personal fall arrest systems, or controlled access zones will be provided to employees engaged in overhead bricklaying or related work six (6) feet or more above the lower level. All employees reaching more than ten (10) inches below the walking/working surface will be protected by guardrail systems, safety net systems, or personal fall arrest systems.

F. Precast Concrete Erection

Guardrail systems, safety net systems, or personal fall arrest systems will be provided to employees working six (6) feet or more above the lower level while erecting or grouting precast concrete members. An alternative Fall Protection Plan shall be used if jobsite Supervisor determines that the implementation of conventional fall protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for precast concrete erection will:

1. Be written specific to the particular jobsite needs;
2. Include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
3. Explain what alternative fall protection will be used for each task;
4. Be maintained in writing at the jobsite by H W Davis Construction Supervisor; and
5. Meet the requirements of 29 CFR 1926.502(k).

G. Roofing

1. Low-Slope Roofs

Fall protection shall be provided to employees engaged in roofing activities on low-slope roofs with unprotected sides and edges six (6) feet or more above lower levels. The type(s) of fall protection needed will be



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determined by H W Davis Construction Supervisor, and may consist of guardrail systems, safety net systems, personal fall arrest systems, or a combination of a warning line system and safety net system, warning line system and personal fall arrest system, or warning line system and safety monitoring system. On roofs 50 feet or less in width, the use of a safety monitoring system without a warning line system is permitted.

2. Steep Roofs

Guardrail systems with toeboards, safety net systems, or personal fall arrest systems will be provided to employees working on a steep roof with unprotected sides and edges six (6) feet or more above lower levels, as determined by a jobsite Supervisor.

H. Wall Openings

Guardrail systems, safety net systems, or a personal fall arrest system will be provided to employees working on, at, above, or near wall openings when the outside bottom edge of the wall opening is six (6) feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface. The type of fall protection to be used will be determined by the jobsite H W Davis Construction Supervisor.

I. Ramps, Runways, and Other Walkways

Employees using ramps, runways, and other walkways six (6) feet or more above the lower level shall be protected by guardrail systems.

X. PROTECTION FROM FALLING OBJECTS

When guardrail systems are in use, the openings shall be small enough to prevent potential passage of falling objects. The following procedures must be followed by all employees to prevent hazards associated with falling objects.

- A. No materials (except masonry and mortar) shall be stored within four (4) feet of working edges.
- B. Excess debris shall be removed regularly to keep work areas clear.
- C. During roofing work, materials and equipment shall be stored no less than six (6) feet from the roof edge unless guardrails are erected at the edge.
- D. Stacked materials must be stable and self-supporting.
- E. Canopies shall be strong enough to prevent penetration by falling objects.
- F. Toe boards erected along the edges of overhead walking/working surfaces shall be:
 - 1. Capable of withstanding a force of at least 50 pounds; and



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2. Solid with a minimum of three and a half (3 ½) inches tall and no more than one quarter (1/4) inch clearance above the walking/working surface.
- G. Equipment shall not be piled higher than the toeboard unless sufficient paneling or screening has been erected above the toeboard.

XI. ACCIDENT INVESTIGATIONS

All incidents that result in injury to workers, as well as near misses, regardless of their nature shall be reported and investigated. Investigations shall be conducted by jobsite Supervisor as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of such an incident, the Fall Protection Program (and alternative Fall Protection Plans, if used) shall be reevaluated by Program Administrator to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

XII. CHANGES TO THE PLAN

Any changes to the Fall Protection Program (and alternative Fall Protection Plans) shall be approved by H W Davis Construction jobsite Supervisor, and will be reviewed by a qualified person as the job progresses to determine additional practices, procedures or training needs necessary to prevent fall injuries. Affected employees will be notified of all procedure changes, and trained if necessary. A copy of this plan, and any additional alternative Fall Protection Plans, will be maintained at the jobsite by Supervisor.

XIII. GLOSSARY

ANCORAGE: a secure point of attachment for lifelines, lanyards, or deceleration devices.

BODY BELT: A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

BODY HARNESS: Straps that may be secured about the person in a manner that distributes the fall-arrest forces over at least the thighs, pelvis, waist, chest, and shoulders with a means for attaching the harness to other components of a personal fall arrest system.

CONNECTOR: A device that is used to couple (connect) parts of a personal fall arrest system or positioning device system together.

CONTROLLED ACCESS ZONE: A work area designated and clearly marked in which certain types of work (such as overhand bricklaying) may take place without



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the use of conventional fall protection systems (guardrail, personal arrest, or safety net) to protect the employees working in the zone.

DECELERATION DEVICE: Any mechanism, such as a rope, grab, ripstitch lanyard, specially-woven lanyard, tearing lanyard, deforming lanyard, or automatic self-retracting lifeline/lanyard, which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limits the energy imposed on an employee during fall arrest.

DECELERATION DISTANCE: The additional vertical distance a falling person travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which a deceleration device begins to operate.

GUARDRAIL SYSTEM: A barrier erected to prevent employees from falling to lower levels.

HOLE: A void or gap two (2) inches (5.1 centimeters) or more in the least dimension in a floor, roof, or other walking/working surface.

LANYARD: A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

LEADING EDGE: The edge of a floor, roof, or formwork for a floor or other walking/working surface (such as a deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed.

LIFELINE: A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), that serves as a means for connecting other components of a personal fall arrest system to an anchorage.

LOW SLOPE ROOF: A roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

OPENING: A gap or void 30 inches (76 centimeters) or more high and 18 inches (46 centimeters) or more wide, in a wall or partition through which employees can fall to a lower level.

PERSONAL FALL ARREST SYSTEM: A system including but not limited to an anchorage, connectors, and a body harness used to arrest an employee in a fall from a working level.

POSITION DEVICE SYSTEM: A body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning backwards.

ROPE GRAB: A deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest a fall.

SAFETY MONITORING SYSTEM: A safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

SELF-RETRACTING LIFELINE/LANYARD: A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.



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SNAPHOOK: A connector consisting of a hook-shaped member with a normally closed keeper, or a similar arrangement, which may be opened to permit the hook to receive an object and, when released automatically, closes to retain the object.

STEEP ROOF: A roof having a slope greater than 4 in 12 (vertical to horizontal).

TOEBOARD: A low protective barrier that prevents materials and equipment from falling to lower levels and which protects personnel from falling.

UNPROTECTED SIDES AND EDGES: Any side or edge (except at entrances to points of access) of a walking/working surface (e.g., floor, roof, ramp, or runway) where there is no wall or guardrail system at least 39 inches (1 meter) high.

WALKING/WORKING SURFACE: Any surface, whether horizontal or vertical, on which an employee walks or works, including but not limited to floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel. Does not include ladders, vehicles, or trailers on which employees must be located to perform their work duties.

WARNING LINE SYSTEM: A barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.



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HAZARDOUS COMMUNICATIONS

GENERAL: 29CFR 1910.1200(a-c)

The following Hazard Communication Program (HAZCOM) has been established to insure compliance with all directives pertinent to Code of Federal Regulations (29 CFR 1910.1200). It is the intent of this program to provide a reference guide to working with hazardous chemicals.

LOCATION OF HAZARD COMMUNICATION PLAN:

The written Hazard Communication Plan is available for review by all employees of H W Davis Construction, Inc. at the office location:

Safety Office at 1212 29th Street, Orlando, FL 32805

Copies of the plan may be obtained from the above at the request of any supervisory personnel.

DESIGNATED PERSONNEL:

The following personnel have been designated as responsible for updating and maintaining the hazard communication program, employee training, labeling, and ensuring that MSDS forms are obtained and maintained.

H.W. Davis Construction will:

- Determine all chemical hazards at the workplace that are under the control of this company
- Ensure that these chemicals are identified and properly labeled for employee protection.
- Train all employees upon initial hiring, and periodically, about the chemical hazards at the workplace.
- Ensure that they can recognize the hazards and take proper actions to prevent injury.
- Keep appropriate records of employee training and other actions to show compliance with OSHA and state regulations.
- Inform contractors of the hazards in the work area to which they are assigned, also of any restrictions involving use of compressed gasses, flame, or chemicals to be utilized by the contractor as part of the job.

The Jobsite Supervisor will:

- Be aware of any chemical hazards that could affect any company employee.
- Maintain a Chemical Inventory List of all hazardous materials brought on the workplace. Have Material Safety Data Sheets accessible to all employees and be available for questions.
- Provide periodic training to all company employees at the workplace. Keep them informed about any chemical hazards in their immediate work area.



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- Ensure that proper protective equipment is used during handling, storage, or use of any hazardous chemical.

A. Chemical Inventory:

- (1) H.W. Davis Construction, Inc. maintains an inventory of all known chemicals in use on the jobsite. A chemical inventory list and MSDS are available from every job superintendent.
- (2) Hazardous chemicals brought onto the jobsite will be included on the Chemical Inventory List and will include an MSDS for each.

B. Container Labeling

- (1) All chemicals on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. Any container not properly labeled should be given to HWD Job Superintendent for labeling or proper disposal. All chemicals are to be stored in designated containment area.
- (2) Employees may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemical left after work is completed must be returned to the original container or the job superintendent for proper handling.
- (3) No unmarked containers of any size are to be left in the work area unattended.
- (4) H.W. Davis Construction, Inc. will rely on manufacturer applied labels whenever possible, and will ensure that these labels are maintained. Containers that are not labeled or on which the manufacturer's label has been removed will be relabeled.
- (5) H.W. Davis Construction, Inc. will ensure that each container is labeled with the identity of the hazardous chemical contained and any appropriate hazard warnings.

C. Material Safety Data Sheets (MSDS):

"MSDS" is the term used to identify a Material Safety Data Sheet. This is a document prepared by the manufacturer or supplier that gives specific information about a chemical or substance. If there is a chemical or substance in our workplace, an MSDS will be available for you to read. Your job supervisor will have the MSDS. A sample copy is attached. You should know how to read this sheet and know first aid procedures should you be exposed to the substance.

Employees working with a hazardous chemical may request a copy of the material safety data sheet from the Job Superintendent.



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How to read and understand an MSDS: Please keep in mind that formats may change from one MSDS to another, however all forms contain basically the following information.

Section 1: Manufacturer Information:

Contains the manufacturer's name, address and phone number should additional information be needed in an emergency situation.

Section 2: Hazardous ingredients

Contains the trade name of the product, the chemicals which it contains and the acceptable exposure limits:

OSHA PEL - **O**ccupational **S**afety and **H**ealth **A**dministration **P**ermissible **E**xposure **L**imit

ACGIH TLV: **A**merican **C**onference of **G**overnmental **I**ndustrial **H**ygienists **T**hreshold **L**imit **V**alue

HMIS Rating: Health – 1 (very low rate of any health risk) Flammability – 0 (none)
Reactivity – 0 (none) Personal Protection – B (very high hazard rating –
pay particular attention to Sections 7 and 8

HMIS Rating: This is a quick reference point as to the types of hazards that exist and will be numbered 0 thru 4 - The **HIGHER** the number, the **GREATER** the hazard and the more precaution required.

HMIS Rating: Personal Protection Equipment uses a lettering system, A thru D, with A being the highest level of protection. Please note: this system is opposite than the numbering system: the **LOWER** the letter, the **GREATER** the hazard and the more precaution required

Section 3: Physical / Chemical Characteristics: (HMIS – Health – 1 thru 4 – 1 being low)

A description of how the product looks, if it is a liquid or solid (danger of splashing), if there is an odor (danger of vapors and fumes)

Boiling Point: Temperature the product will boil thereby changing state from liquid to gas; vapor pressure

Vapor Density: Is it lighter than air? - Air being 1.0:

.01 - .99 – the substance is lighter than air, fumes will rise and create a danger above you;

1.0+ the substance is heavier than air and fumes will fall, danger exists closer to the ground



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Specific Gravity – Will it float on top of water? Water being 1.0

.01 - .99 - the substance is lighter than water – capable of floating

1.0+ - the substance is heavier than water – will not float and will sink

Section 4: Flash point and extinguishing methods; (HMIS – Flammability – 1 thru 4 – 1 being low)

An explanation of flammability characteristics (will contain the flashpoint – the temperature which a substance will catch fire) and firefighting procedures and method of extinguishing (see Fire Protection Section of this book for information on types of extinguishers to be used).

(A combustible liquid is any liquid having a flashpoint at or above 100 degrees F but below 200 degrees F).

Section 5: Reactivity Data: Is it stable or unstable? (HMIS – Reactivity – 1 thru 4 – 1 being low)

The higher the number the more care and precaution should be taken when handling the product.

Conditions to Avoid: Will contain special handling or storage procedures needed.

Incompatibility: All substances to be avoided.

Hazardous Decomposition or By-Products: Will substance decompose or give off toxic fumes or gases (possible carbon monoxide or carbon dioxide (See Personal Protective Equipment Section of this book for information)).

Hazardous Polymerization: Will indicate if it May or Will Not occur.

Polymerization is a chemical reaction causing the substance to reduplicate (the substance will become larger in volume) and will state any conditions to avoid.

Section 6: Health Hazard Data: (HMIS – Health - 1 thru 4 - 1 being lowest)

Routes of Entry: How can the chemical enter the body and the effects caused?

- a.) Inhalation – painful to nose and mouth when breathing
- b.) Skin contact – irritation and burning
- c.) Eye contact – burning, watering
- d.) Ingestion – should vomiting be induced or not

Health Hazards (Acute and Chronic): Will identify specific chemicals contained, type of hazard, precautions to avoid overexposure, and type of reaction.



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Carcinogenicity: Will it cause cancer?

Signs & Symptoms of Exposure: Will list the effect the chemical has on the body and medical conditions that could be aggravated by exposure to the chemical.

Emergency & First Aid Procedures: Description of immediate action to be taken upon exposure or contact with the chemical.

Section 7: Precautions for Safe Handling & Use

Steps to be taken in case material is released or spilled: Information on how to contain the substance, proper clean up and disposal procedures. Will list precautions on areas to avoid and any dangerous situations the product can create.

Precautions to be taken in handling and storage: Will contain information for proper storage such as proper temperature, direct sunlight, moisture, atmospheric conditions that may affect the product and use of approved containers.

Other Precautions: Will specify special handling requirements.

Section 8: Control Measures (HMIS – Personal Protection - A thru D – A being highest)

Respiratory Protection (type): Will list Personal Protective Equipment required which could range from dust or mist masks to breathing apparatus.

Ventilation: Will list adequate ventilation requirements, whether it be open ventilation or as complex as a mechanical fresh air supply.

Protective Gloves: Are rubber gloves required?

Eye Protection: Safety goggles or face shield required?

Other Protective Clothing or Equipment: such as: overalls to be worn (over or in place of regular work clothes); is a separate/enclosed changing area needed with special disposal procedures for contaminated overalls; safety shower or eyewash area necessary.

Work/Hygienic Practices: Practice good housekeeping. Use good personal hygiene practices.

D. Products delivered without MSDS:

All suppliers are required to include the MSDS as part of the shipment; however, if one is not received with a product, the data sheet can usually be located by the supplier and a fax copy received immediately. If this is not possible, a written request for the information must be sent to



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the manufacturer. In the meantime, pertinent information may be found on the label of the product. The label is the first source for chemicals contained in the product, the manufacturer's name and phone number and precautions for handling and storage.

E. Recognizing Hazards and Hazard Labeling:

Most hazardous chemicals can be easily identified by: SMELL, TASTE, TOUCH, and SIGHT. If fumes burn your eyes or nose – it is probably hazardous – GET AWAY FROM IT. If it burns or irritates your skin – GET AWAY FROM IT. If you see smoke, fumes, dust or articles - GET AWAY FROM IT. If there is any doubt about the safety of the situation, ask your supervisor before working in the area.

Most of the chemicals you see on the jobsite will be labeled. The manufacturer is required to apply these labels and they must remain on the container. There is a standard way of labeling harmful chemicals:

CAUTION -- WARNING – DANGER -- and following these large words will be an explanation as to the type hazard such as 'POISON', 'FLAMMABLE', etc.

- CAUTION - Means a minor hazard but could cause some health problems if the chemical was inhaled or swallowed.
- WARNING - Means a greater hazard and could cause health problems if the chemical contacted skin, eyes or entered your body.
- DANGER - Means a much greater hazard and could cause permanent injury or death if the chemical contacted or entered the body.

Common sense rules will help you in most situations:

Any chemical used in the workplace is not to be eaten – don't eat them and do not eat your lunch near them.

None of the chemicals at the workplace are good for the skin or eyes; do not get them on your skin and keep them away from your eyes.

Do not breathe foreign objects such as dust, vapors, fumes or particles, etc. into your body. Get away from them or use correct safety equipment.

IF YOU HAVE ANY CONTACT WITH HAZARDOUS CHEMICALS OR SUBSTANCES ON THE JOBSITE, TELL YOUR SUPERVISOR AND GET MEDICAL TREATMENT AS SOON AS POSSIBLE.



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“Hazardous Chemical” is defined as any chemical which is a physical or health hazard. They generally fall into two categories:

Health Hazard

Corrosive
Irritant
Toxic
Carcinogen (causing cancer)
Chemicals affecting specific
Organs, i.e., liver, kidney

Physical Hazard

Combustible or flammable liquid
Compressed gas
Explosive
Oxidizer
Unstable, Water-reactive

F. Chemical Family:

1. METAL S / COMPRESSED GASES

Definition: Metals may be found as a solid or fume if heated. A compressed gas is any material under pressure. The pressure may be low or high, depending on the material. A compressed gas may be an inert material (argon, hydrogen), corrosive, solvent or a metal.

Example: Acetylene (welding) Cadmium (welding rod) Argon (welding)
Silver (welding rod) Oxygen (welding)

Uses: On a construction site, metals and compressed gases are used in welding. Metals are used on ductwork, piping and framing.

Dangers: Metal dusts and fumes can cause a pneumonia-like illness, or can irritate skin. Some (Metals) metals are very toxic like beryllium, cadmium and nickel; suspected of causing cancer.

Compressed gases may possess the same toxicity as the material in another form or may be more toxic. Compressed gases are dangerous if released too fast. Some gases are FLAMMABLE. Some gases displace oxygen and act as an asphyxiant.



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- Handling: Protective clothing, gloves, adequate ventilation and goggles are ALWAYS required for welding. Special handling required for the toxic metals or their alloys.
- Storage: Store compressed gases in a cool dry place out of the sun – IMPORTANT!! Some gases must be separated due to flammability, toxicity or incompatibility. Valves must be protected; full and empty cylinders must be marked. Metals have no special storage requirements. Stored metal dust must be kept dry and away from ignition source.
- FIRST AID: Depends on metal and its physical form; some metals do not act on the body for several hours after exposure.

For compressed gases, first aid is typically the same as the material in its other form.

2. CORROSIVES

Definition: Acid or alkali: A material that can attack metal and human tissue, such as mucous membrane, etc. Can be found as a liquid and a solid. Chemical names may include "ACID" or "HYDROXIDE".

Example: Acetone

Muriatic Acid (masons)

Hydrochloric Acid (wood workers and plumbers)

Oxalic Acid (wood workers)

Potassium Hydroxide (painters)

Sodium Hydroxide (plumbers)

Uses: Clean finishes, bleaches

Dangers: Very irritating to the skin and eyes. Can cause severe burns. Toxic vapors can be given off when mixing a corrosive with an incompatible material. Fumes may be irritating to breathe.

Handling: May require gloves, apron, goggles, respirator. Special ventilation may be required.

Storage: Cool, dry place out of the sun. Separate acids from alkalis.

FIRST AID: Wash the contacted area for 15 minutes with cold water and seek medical aid.



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3. SOLVENTS

Definition: A liquid capable of dissolving one or more materials without undergoing a chemical reaction. Can be identified by its paint-like, sweet odor.

Example: Perchloroethylene (degreaser) Toluene (paint thinner)
Dichloroethane (adhesive) Xylenes (paints)
Methylene Chloride (paint stripper)

Uses: Cleaning oils, greases and resins. Found in paints, varnishes, polishes and adhesives.

Dangers: Inhaling the vapor may cause lack of coordination or damage to the liver, kidneys, nervous system. Solvents may irritate the skin or be absorbed through the skin. Solvents may be flammable.

Handling: May require gloves, apron, goggles, respirator. Special ventilation may be required. Be sure that the proper protective equipment is used. Type of respirator required may vary with different solvents.

Storage: Cool, dry place out of the sun. Separate corrosives from solvents. May require special ventilation.

FIRST AID: Wash the contacted area for 15 minutes with cold water and seek medical aid. If ingested or inhaled, seek medical aid.

G. NON-ROUTINE TASKS

Before any non-routine task is performed, employees shall be advised and/or they must contact the jobsite Supervisor for special precautions to follow and the jobsite Supervisor shall inform any other personnel who could be exposed.

If a non-routine task is necessary, the jobsite Supervisor will provide the affected employees with information about the activity as it relates to the specific chemicals expected to be encountered.



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1. Specific chemical name(s) and hazard(s);
2. Personal protective equipment required and safety measures to be taken;
3. Measures that have been taken to lessen the hazards including ventilation, respirators; and
4. Emergency procedures

Jobsite Supervisor will contact each contractor before work starts to gather and disseminate any information concerning chemical hazards the contractor is bringing into the workplace.

H. MULTI-EMPLOYER PROJECT WORK SITES:

It is the responsibility of the designated jobsite Supervisor at the Project Work Site to provide contractors and their employees with the information listed below. This information will be given to the contractor's employees prior to their entering the work site.

- a. Hazardous chemicals what they may be exposed to on the work site
- b. Measures the employee may take to reduce the possible exposure
- c. Steps that H W Davis Construction, Inc. has taken to reduce the risks
- d. MSDS for all hazardous chemicals are on file in the office of H W Davis Construction, Inc., or the appropriate project work site
- e. Procedures to follow if they are exposed.
- f. Location of the written plan is at the office of H W Davis Construction, Inc.

I. LABELING/TAGGING AND OTHER FORMS OF WARNING

Each container of hazardous chemicals received from the chemical manufacturer, importer or distributor will be labeled with the following information:

- Product Identifier
- Signal Word
- Hazard Statement(s)
- Pictogram(s)
- Precautionary Statement(s)
- Name, Address and Telephone Number of the Chemical Manufacturer, Importer or Other Responsible Party



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H W Davis Construction, Inc. will use the GHS (Globally Harmonized System) labeling system for secondary containers. When a chemical is transferred from the original container to a portable or secondary container, the container will be labeled, tagged or marked with a GHS label containing the following information:

- Product Identifier
- Signal Word
- Hazard Statement(s)
- Pictogram(s)
- Precautionary Statement(s)

Portable containers into which hazardous chemicals are transferred from labeled containers and that are intended for the immediate use of the employee who performs the transfer do not require a label. If the portable container will be used by more than one employee or used over the course of more than one shift, the container must be labeled

Signs, placards, process sheets, batch tickets, operating procedures or other such written materials may be used in lieu of affixing labels to individual, stationary process containers as long as the alternative method identifies the containers to which it is applicable and conveys the information required for workplace labeling.

Where an area may have a hazardous chemical in the atmosphere (e.g., where extensive welding occurs), the entire area will be labeled with a warning placard.

Workplace labels or other forms of warning will be legible, in English and prominently displayed on the container or readily available in the work area throughout each work shift. If employees speak languages other than English, the information in the other language(s) may be added to the material presented as long as the information is present in English as well.

J. SAFETY DATA SHEETS

An SDS will be obtained and maintained for each hazardous chemical in the workplace. SDSs for each hazardous chemical will be readily accessible during each work shift to employees when they are in their work areas.

SDSs will be obtained from the chemical manufacturer, importer or distributor. The name on the SDS will be the same as that listed on the chemical inventory list. SDSs for chemicals or



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process streams produced by the company will be developed and provided by the safety coordinator.

The safety coordinator will maintain the master file of all original SDSs. Hard copies of the master file will be located in the H W Davis Construction, Inc. safety office at 1212 29th Street, Orlando, FL 32805.

SDSs for new products or updated SDSs for existing products will be obtained by the purchasing agent and forwarded to the safety coordinator. The safety coordinator will then update the master file with new and/or updated SDSs.

If problems arise in obtaining an SDS from the chemical manufacturer, importer or distributor, a phone call will be made to request an SDS and to verify that the SDS has been sent. The phone call will be logged and a letter will be sent the same day. The company will maintain a phone a written record of all efforts to obtain SDSs. If these efforts fail to produce an SDS, the local OSHA office will be contacted for assistance.

K. EMPLOYEE INFORMATION AND TRAINING

Employees included in the hazard communication program will receive the follow information and training prior to exposure to hazardous chemicals and when new chemical hazards are introduced to their work area:

- Requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 (General Industry) or 29 CFR 1926.59 (Construction Industry)
- Operations in the work area where hazardous chemicals are present
- Location and availability of the hazard communication program, chemical inventory list and SDSs
- Methods and observations used to detect the presence or release of a hazardous chemical in the work area, such as monitoring devices, visual appearance or odor of hazardous chemicals when being released
- Physical, health, simple asphyxiation, combustible dust and pyrophoric gas hazards, as well as hazards not otherwise classified of the chemicals in the work area
- Measures employees can take to protect themselves from hazards, such as appropriate controls, work practices, emergency and spill cleanup procedures, and personal protective equipment to be used
- Explanation of the labels received on shipped containers
- Explanation of the workplace labeling system



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- Explanation of the SDS, including order of information and how employees can obtain and use the appropriate hazard information

ENVIRONMENTAL PROTECTION AGENCY

ACCIDENTAL ENVIRONMENTAL RELEASE PROGRAM

A. Immediate Response Team

H W Davis Construction, Inc.

Main Office 407-849-1212

H. Ward Davis, President, 407-488-8558

Jeffrey J. Rife, Vice-President, 407-496-5233

Colleen Geving, Safety Manager, 321-202-0394

Jimmy Peacock, Project Manager, 407-496-5235

Paul Barros, Project Manager, 407-496-5234

Environmental Consultants and Services

Florida Environmental Compliance Corporation

933 Lee Road, Orlando, FL 32810

407-644-5233

Chemical Conservation Corp.

10100 Rocket Blvd., Orlando, FL 32824

407-859-4441

Asbestos Removal

D.R.S. of Central Florida, Inc.

5651 Commerce Drive, Unit #8, Orlando, FL 32809

407-240-1225

B. Response Strategy

The following information is to establish an immediate response plan to minimize any damage resulting from a spill that may be harmful to the environment. The first line of defense is to be aware of all

potentially harmful substances at your jobsite. This would include items such as propane / natural gas and gasoline lines that are present at the site before beginning work and imported



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materials brought in during the course of construction which include, but not limited to, pest control, concrete, pressure treated wood, cleaners, paints, paint thinners and sealing compounds.

Typically all environmental hazards on any given site have previously been located, identified and contained & /or disposed of before mobilization thus minimizing our exposure to catastrophic spills and contamination. Environmentally sensitive utility lines such as propane / natural gas and gasoline lines, (as well as water and electric) are located and identified with signs or flags above the ground and will be shown on the project blueprints. Sunshine State One Call Center (800-432-4770) is always notified of pending construction and all Dig and Right of Way Utilization permits secured before beginning any groundwork.

However, all the precautions cannot prevent a mistake in the field, an error on the plans or a moved locator flag. Cut and/or broken lines can and do happen and spillage of a construction material can occur but is kept to a minimum due to the relatively small quantity of open product being utilized on site.

Immediate response actions to be taken are categorized as follows:

- A. Natural Gas / Propane Gas / Gasoline Pipeline leaks
- B. Gasoline spills (present in all vehicles and some machinery, i.e. generators)
- C. Construction products imported for use in the course of construction
- D. Fire
- E. Asbestos removal

We do not expect our personnel to endanger themselves or others in the course of any immediate response action taken for which they are not properly trained.

Whenever there is a release, fire or explosion the emergency coordinator (Field Superintendent) will immediately identify the character, exact source, amount and a real extent of any released materials.

C. Hazardous Materials Incident Procedures:

1. Hazardous Incidents include any chemical releases to the work area thereby potentially adversely affecting the worker. Additionally, any spills or releases of any hazardous gas, vapor, or material into the atmosphere or environment that would pose an immediate threat or has caused a threat to life, property, or environment on Owner's property or surrounding community.
2. Upon making this determination, the EHS Department and/or Emergency Management Team (EMT) will institute appropriate actions to control or limit the severity of the incident. Every effort will be made to prevent the loss of life,



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destruction of property, and reduce possible contamination that may be detrimental to employees or to the environment.

3. At the scene of the incident, the EHS Department will coordinate with Owner's Management to assess the overall situation and determine the severity and potential. At that time, a determination shall be made to call for outside assistance or to control the incident internally.
4. The request for outside assistance will be made by Owner's EHS or through Owner's Security.
5. The Owner's EHS Department will request assistance and provide the outside agency with the following information:
 - a. Caller's name and company
 - b. Phone number at Security
 - c. Nature of spill and chemical(s) involved
 - d. Any injuries, property damage, or threat to employees, guests or community
 - e. Give classification of Hazardous Material Incident.
 - f. The Owner's Security Unit will meet and direct outside emergency assistance to the scene

D. Classification of Hazardous Material Incidents:

A Hazardous Material Incident shall be classified into one of four categories. Determination of the proper category shall require the EHS Manager or Incident Commander to evaluate the threat to life, property, environment and the amount of additional assistance required to control the incident.

Level 0: Community (local area surrounding Owner's property) complaints require investigation by the EHS Manager. The complaint will be documented and report filed with Owner's Executive Management.

Level 1: Incident of limited impact. Can be handled by Owner's personnel. No threat to life, property or environment.

Level 2: Incident having the potential for loss of life, property or damage to the environment. Security will notify the EHS Department. The EHS Manager and Security Manager will determine and order the evacuation of the affected area(s). Outside assistance may or may not be required and will be determined by the severity and magnitude of the incident.

Level 3: Immediate threat to life, property and/or environment. Injuries or death are probable. EHS and Security will determine and order the affected area(s) be evacuated. Outside assistance WILL BE requested.



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- a. Security will contact the **EMERGENCY RESPONSE SYSTEM** by dialing **911**, request the **FIRE DEPARTMENT** be dispatched, and give nature of hazardous incident (EHS will provide).
- b. Note: Incidents may downgrade or escalate at any time. Incidents will be reclassified as necessary.

E. Prevention of Broken Lines

SUNSHINE ONE CALL CENTER - 1-800-432-4770

When you call this number you will be advised of pipe locations on your jobsite within 48 hours and locations will be suitably marked.

Florida Laws F.S. 556.1: Underground Facility Damage Protection and Safety Act and F.S. 553.851 Protection of Underground Pipelines mandate that **“No excavator shall commence or perform any excavation in any public or private street, alley, right-of-way dedicated to the public use, or gas utility easement without first obtaining information concerning the possible location of gas pipelines in the area of the proposed excavation.”**

Excavators must notify the gas utility a minimum of 48 hours and a maximum of 5 days prior to excavation (excluding Saturdays, Sundays and legal holidays)

1. Natural and Propane Gas / Gasoline Leaks

(broken lines and leaks from underground piping)

- A. **STOP ALL WORK IMMEDIATELY!!** – DO NOT RISK A SPARK
Shut off all combustible engines, set tools down (do not throw them), extinguish all flames
- B. **TURN OFF ALL CELL PHONES** – RINGING CAN CREATE A SPARK
- C. **CALL 911** – Be sure to have the EXACT location and type of leak.
- D. Isolate the area. Assign individuals to clear the area of all workers and to prevent others from entering. Instruct all personnel to meet at the pre-determined meeting place outside the jobsite area so that all employees can be accounted for. (A meeting place will already be established at the beginning of the project per health and Safety HWD Jobsite Safety Manual – Section 4 – Safety Education, Para. F)
- E. Notify the utility company:
 1. Peoples Gas Company , 407-425-4661, distributes natural and propane gas to customers in more than 200 cities in the State of Florida through a network of over 12,000 miles of underground piping.



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Other emergency numbers for Peoples Gas Company:

Daytona Beach 904-253-5635 Eustis 352-357-3154

Jacksonville 904-739-1211 Orlando 407-425-4661

2. Central Florida Pipeline – 407-855-0713 (gasoline lines) C.F.P.L. runs approximately 125 miles of gasoline lines from Tampa to the Taft facility and has highly trained personnel in EPA procedures.

2. Gasoline spills - Imported in vehicles, machinery, tools

1. Five gallons or less:

- a. **STOP WORK IMMEDIATELY!! DO NOT RISK A SPARK.**
Extinguish all flames, shut off combustible engines, discontinue use of all tools,
set tools down (do not throw them).
TURN OFF ALL CELL PHONES – RINGING CAN CREATE A SPARK.
- b. Locate fire extinguisher and have ready in case of ignition.
- c. Lay down absorbent material to soak up spilled material. Contain the spill in one area. Dispose of absorbent material in a container that is not air tight to prevent fumes from accumulating and subsequently exploding.

2. Five gallons or more: (contained in large earthmoving machinery or vehicles - a spill could occur from machinery overturning or a tank being ruptured)

- a. **STOP WORK IMMEDIATELY!! DO NOT RISK A SPARK.**
Extinguish all flames, shut off combustible engines, discontinue use of all tools,
set tools down (do not throw them). **TURN OFF ALL CELL PHONES** - ringing can create a spark.
- b. Locate fire extinguisher and have ready in case of ignition.
- c. In case of an overturned machine, if the driver cannot remove himself from the machine, assist in moving him/her to a safe location only if doing so will not cause injury. If the driver is not conscious, move only if he/she is in immediate danger of fire and explosion and wait for trained personnel.
- d. Dike the area to prevent spreading, cover spill area with non-combustible absorbent material such as dirt, sand or granules. When all gasoline is absorbed, dig the area by
- e. hand, placing contaminated soil in a container for transport to a Hazardous Waste disposal site
- f. If the spill is too large to be contained and disposed of properly as stated above, then the following company should be called for clean-up and disposal: Florida Environmental Compliance Corp. 407-644-5233



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F. Chemical Release:

1. The employee has generally three ways of detecting a chemical release, they are as follows:
 - a. Sight– fumes or spills may be present
 - b. Smell – an obnoxious odor may be present, eyes may water and breathing may become difficult.
 - c. Taste – a dry or unusual taste may be present
2. If anyone if the above identifiers are present, it is the responsibility of the employee to immediately seek first aid if exposure is suspected, notify his supervisor and secure the area if possible. The supervisor will notify an EHS Safety Manager and abide by Owner's procedures in controlling and responding to the incident.
3. The supervisor will ensure the employee is trained in awareness, of proper use, handling, and storage of chemicals. Improper procedures may result in some or all of the following:
 - a. Combining of incompatible chemicals may result in explosions, formation of toxic gases or other violent reactions.
 - b. Spills of unattended chemical releases and unsecured open containers left undressed may generate toxic and/or flammable gases and/or liquids. Note: Releases of such chemicals are also considered environmental violations of air, water and waste regulations.
 - c. Storing incompatible materials, i.e. acids with pesticides, may cause the release of a toxic gas or other hazardous condition.
 - d. Smoking or other ignition producing devices around flammable substances, i.e. gases and/or liquids, may result in fires or explosions.

G. Imported Material: Building materials imported during the course of construction

Locate the Material Safety Data Sheet before using any product - Familiarize yourself with the proper handling procedure, the physical and chemical hazards present, and emergency procedure. (See HWD Jobsite Safety Manual – Hazardous Communication b. Employee Training, How to Read MSDS, Pages 3 thru 6)

1. CORROSIVES –

EMERGENCY PROCEDURES:

1. Avoid contact with liquid. Do not breathe fumes.
2. Use whatever available means to stop further leakage.
3. ACT IMMEDIATELY – If breathing has stopped, give artificial respiration. If corrosive is in eyes, hold eyelids open and flush with plenty of water.
4. Notify emergency personnel immediately. Field superintendent should assign a competent person, if available, to transport any injured person to the closest



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emergency room or medical office. The Field Superintendent should remain at the scene to oversee emergency procedures.

5. Keep other workers and the public away.
6. Stay upwind, keep out of low areas.
7. Do not put water on leak or spill area.
8. Contain the spill in one area, lay down absorbent material to soak up spilled product; place material in a drum for proper disposal.

2. SOLVENTS:

EMERGENCY PROCEDURES:

1. Avoid breathing vapors (stay upwind)
2. Remove all sources of ignition.
3. Evacuate the area immediately and warn others of the hazard to prevent someone from entering.
4. Notify emergency personnel – (Field Superintendent)
5. If clothing has been contaminated, flush with water and remove contaminated clothing immediately.
6. Start as much air flowing through the spill area as possible without having vapors spread to other parts of the establishment. Pay particular attention to low places where vapors will collect. Evacuate all persons in adjacent rooms that may be serviced by the same air conditioning system. If at all possible, shut off the air conditioning system, as these fumes will flow through the air return and back into the system in adjacent areas in a matter of minutes.
7. Spills should be cleaned up by a trained person wearing gloves and a respirator approved for use with solvent vapors.
8. Place a blanket, clothes or rags over the spill to absorb the solvent and reduce the surface area available for evaporation.

Small spills - Soak up with noncombustible, absorbent material, place in drums for proper disposal.

A "Buddy" system is essential when cleaning up a spill. A back-up person, also wearing a respirator, should be standing by outside of the spill area, ready to assist immediately if the clean-up person is overcome.

Large spills – dike and contain. Remove with vacuum trucks or pump to storage/salvage containers.

If spill is too large to clean and contain and requires a vacuum truck, one of the two following companies should be called.

Florida Environmental Compliance Corp - 407-644-5233
Chemical Conservation Corp - 407-859-441



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H. Fire

H.W. Davis Construction, Inc. has no firefighting capabilities except the fire extinguisher; therefore, it is our policy to defer to properly trained personnel all action beyond an initial survey and the use of a fire extinguisher if the fire has been determined that it can SAFELY be contained by doing so. It is the responsibility of the Field Superintendent to know the chemicals being used on his jobsite and the type of fire extinguisher needed for each.

Of the above mentioned imported materials some are highly flammable and others are flammable if used improperly.

EMERGENCY PROCEDURES: CALL 911

Evacuate the immediate area. Only the Field Superintendent will determine whether a fire extinguisher should be used and only he, or another competent person, will do so.

H.W. Davis Construction, Inc. does not allow storage of chemicals at any jobsite other than what can be used immediately and typically in quantities of no more than 5 gallons at any time.

When chemicals are present at the site and the possibility exists that they may become endangered by the fire, relocate them to a remote area, if in doing so, there is no immediate danger. If direct heat from the fire can be felt, do not attempt to move them, clear the area and wait for the firemen.

If chemicals present at the jobsite are in eminent danger of the fire, locate your chemical list to alert the firemen as to what chemicals will be encountered. Fumes can be deadly and there is always the possibility of an explosion.

I. Asbestos Removal:

1. All asbestos will be removed before H.W. Davis Construction, Inc. mobilizes and no employee will be subjected to asbestos exposure. Removal of such and subsequent required testing will be accomplished by:

D.R.S. of Central Florida, Inc.
5651 Commerce Drive, Unite #8
Orlando, FL 32809
407-240-1225; Fax: 407-240-1483



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SAFEGUARDING SAFETY SYSTEMS / LOCKOUT AND TAGOUT PROGRAM

Assignment of Responsibility

- A. **Program Administrator** will be responsible for implementing the lockout/tagout program.
- B. **Safety Coordinator** is responsible for enforcing the program and insuring compliance with the procedures in their departments, monitoring the compliance of this procedure and will conduct the annual inspection and certification of the authorized employees.
- C. **Authorized employees** are responsible for following established lockout/tagout procedures. An authorized employee is defined as a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under 1910.147, The Control of Hazardous Energy (lockout/tagout).
- D. **Affected employees** (all other employees in the facility) are responsible for insuring they do not attempt to restart or re-energize machines or equipment that are locked out or tagged out. An affected employee is defined as a person whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Employees shall protect and in no way interrupt or invalidate any installed safety system or personnel safety device, such as firefighting equipment and sensing devices, fire alarm centers, fire water supply, guardrails, safety chains, warning lights or safety signs.

Employees must inform HW Davis Field Superintendent when interruption of systems service safety devices is required. Work is not to proceed until a Lockout / Tag out Permit has been submitted and approved and a Lockout/Tag out "TAG" has been issued. In the event that it is necessary to temporarily remove or invalidate any personnel safety devices, an alternate means of protection will be provided prior to removing or invalidating any permanently installed safety devices or equipment.

The proposed alternate method must be stated on the L.O./T.O. Permit and approved by the Owner's Engineering or Safety Department or Contracting Officer. In either event, work is NOT to proceed until authorized and supervised by HW Davis.



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This procedure establishes the minimum requirements for the **Lockout / Tag out** of energy isolating devices (i.e., electricity, air /steam, pressure) to ensure that the system, panel, circuits, machinery or equipment is isolated from all potentially hazardous energy sources before any work is performed where the unexpected energizing or start-up or release of stored energy could cause injury.

Lockout is the turning off and installing a lock on the (power source) switch making it physically impossible to restore power without the lock first being removed.

Tag out is the placing of a tag on a power source. The tag acts as a warning not to restore energy – it is not a physical restraint. Tags must clearly state: **“DO NOT OPERATE SYSTEM OR REMOVE THIS TAG”**.

For information and communication purposes, H W Davis Construction, Inc. requires that a “TAG” be issued in all instances (including when a lock is in place).

All Subcontractors/Sub-subcontractors are required to notify H W Davis Construction of any work requiring lockout/tagout and to follow HWD procedures to obtain a permit application and in the completion of the work. A separate permit application must be submitted and a “TAG” obtained for each area of work being performed which is powered by a different source.

A. Preparation for Lockout and Tagout

1. Make a survey to locate and identify all isolating devices to be certain which switches, valves or other energy isolating devices apply to the equipment to be locked and tagged out. More than one energy source such as electrical, mechanical, hydraulic, steam or gas may be involved.
2. Complete a Lockout / Tag out permit application – available from H W Davis Construction and return to HWD Field Superintendent. HWD will inform Owner’s Maintenance / Engineering Dept. and upon approval, issue a “TAG”.
3. Work cannot be started until the Lockout/Tag out permit application is approved and a “Tag” issued and in place.

B. Sequence of Lockout and Tagout system Procedure

1. Prior to starting work on machines or equipment that have been locked out or tagged out, notify all affected employees that a lockout / tag out system is going to be utilized and the reason. The designated Person Responsible shall know the type and magnitude of energy the system, machine or equipment utilizes and shall understand the hazards thereof. (i.e. Electrical, Mechanical and Pneumatic).



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2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.)
3. Operate the switch, valve, or other energy isolating devices so that the equipment is isolated from its energy sources. Stored energy, such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, etc., must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
4. Lockout and tag out the energy isolating devices with assigned individual lock and tags. The equipment is now locked out or tagged out.
5. Where a tag cannot be affixed directly to the energy-isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
6. Following the application of lockout/tagout devices to energy-isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe.
7. Prior to starting work on equipment or machinery that has been locked out or tagged out, and as a check on having disconnected the energy sources, an H W Davis Construction authorized employee will verify a "zero energy state" and that energy has been isolated and that the equipment and/or machinery has been de-energized by operating the push button or other normal operating controls to make certain the equipment will not operate.
8. If there is a possibility that the locked/tagged out equipment and/or machinery may accumulate stored energy to a hazardous level, verification of energy isolation shall be continued until the servicing and/or maintenance activity is completed, or until the possibility of such accumulation no longer exists.

C. Verification of Isolation

Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.

D. Restoring Machines or Equipment to Normal Production Operations

1. After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.
2. Once servicing, maintenance or work is complete and system / equipment is ready for normal production operations, inspect the area to ensure that no one is exposed.



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3. Inspect the area to ensure all tools, materials and debris have been removed from the system, machine or equipment and that guards have been reinstalled and employees are in the clear.
4. Only the person that locked and or tagged the system, equipment, machinery, panel or circuit can remove the lock or tag and restore power.
5. Verify that all controls are in neutral or "OFF".
6. Operate the energy devices to restore energy to system, machine, or equipment.

E. Procedure Involving More than One Person

In the preceding steps, if more than one individual is required to lockout equipment, each individual shall place his/her own personal lockout device (lock) on the energy isolating devices. Tagout "TAGS" are NOT to be relied upon to secure system and are to be used for communication and information purposes only. When an energy isolating device cannot accept multiple locks, a single lock may be secured in place with the key being placed in a lockout box or cabinet which can be secured by multiple locks.

As each person no longer needs to maintain lockout protection, that person will remove his/her lock from the box or cabinet. Only the designated person responsible named on the "TAG" will be the last to remove his/her lock to access the key to remove the hasp or restore energy.

F. Procedure Involving More than One Shift

In general, if a piece of equipment is locked out at a personnel change, the person beginning the job must apply his/her lock before the employee who is leaving the job can remove his/hers.

Subcontractor is required to provide proper communication and instructions to the oncoming shift and the Owner's Maintenance /Engineering Dept.

G. Basic Rules for Using Lockout and Tagout System Procedure

1. Employees are required to follow lockout/tagout procedures during installing, servicing or maintenance of equipment.
2. All systems, machinery or equipment shall be locked out and tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Never attempt to operate any system, machinery, or equipment that has a lockout attached
3. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked and tagged out.
4. Never remove or ignore a lockout /tag out "Tag".



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RULES OF ELECTRICITY

Above all rules, RESPECT ELECTRICITY - A little current can kill. If the contact is good, 110 volts can be just as hazardous as 10,000 volts.

- a. Before any work is started where electric power is required, the location, voltage and circuit breakers will be verified. Electrical line shall be de-energized before work is done on or near it, no matter how low the voltage.
- b. Proper Lock Out and Tag Out procedures will be followed. A permit must be obtained before commencing work (See HWD Safety Manual Section VIII)
- c. No employee shall be permitted to work where there is a possibility of contact with electric power until all safety precautions have been taken.
- d. A qualified electrician will perform all electrical work. Do not make repairs to electrical equipment or wires unless you have been trained and authorized to do such work. Persons doing electrical work or working near energized circuits should wear the appropriate safety equipment.
- e. In compliance with OSHA REGULATORY GUIDE Section 1926.400 thru and including 1926.449 and according to local, state or National Electrical Codes.
- f. All electrical equipment must be properly grounded. Ground-Fault Circuit Interrupters (GFCI): (1926.404.b.ii) All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure
- g. and which are in use by employees, shall have approved ground-fault circuit interrupters. Do not overload circuits.
- h. Perform visual inspection of all extension cords and cords on power tools for cuts, bends and exposed wires. Discard / replace all damaged cords. Extension cords must be the 3-wire type and must not be spliced.
- i. Do not leave cords where cars or trucks will run over them. Of electrical cords must cross a roadway, use protective crossover devices. Cables must be covered or elevated to protect them from damage.
- j. Only approved UL or National Electrical Manufacturers Association plugs and receptacles shall be used on all jobs. Adapters or "cheaters" shall not be used to connect electrical equipment to improper equipment.

H. Testing or positioning of machines, equipment and/or components

In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

1. Clear the machine or equipment of tools and materials in accordance with paragraph (e)(1) of this section;



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2. 1910.147(f)(1)(ii) Remove employees from the machine or equipment area in accordance with paragraph (e)(2) of this section;
3. 1910.147(f)(1)(iii) Remove the lockout or tagout devices as specified in paragraph (e)(3) of this section;
4. 1910.147(f)(1)(iv) Energize and proceed with testing or positioning;
5. 1910.147(f)(1)(v) De-energize all systems and reapply energy control measures in accordance with paragraph (d) of this section to continue the servicing and/or maintenance.
1910.147(f)(2) Outside personnel (contractors, etc.)
6. 1910.147(f)(2)(i) Whenever outside servicing personnel are to be involved in activities covered by the scope and application of this standard, the on-site employer and the outside employer shall notify one another of their respective lockout or tagout procedures.
7. 1910.147(f)(2)(ii) The on-site employer shall ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

I. Training and Communication

Each authorized employee who will be utilizing the lockout/tagout procedure will be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) shall be instructed in the purpose and use of the lockout/tagout procedure, and the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

Training will be certified using Attachment B (Authorized Personnel) or Attachment C (Affected Personnel). The certifications will be retained in the employee personnel files.

J. Periodic Inspection

A periodic inspection (at least annually) will be conducted of each authorized employee under the lockout/tagout procedure. This inspection shall be performed by the Safety Coordinator. If Safety Coordinator is also using the energy control procedure being inspected, then the inspection shall be performed by another party.

The inspection will include a review between the inspector and each authorized employee of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection will also consist of a physical inspection of the authorized employee while performing work under the procedures.



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The Safety Coordinator shall certify in writing that the inspection has been performed. The written certification (Attachment D) shall be retained in the individual's personnel file.



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MATERIAL HANDLING:

- a. All material shall be stacked or piled so that it is secure and stable from sliding, collapsing or dangerous movement.
- b. Flammable liquids shall be stored in the area designated in Hazardous Materials Storage and shall be one hundred (100) feet from other materials
- c. All used lumber will have the nails pulled out or hammered down flush before stacking.
- d. Material Safety Data Sheets must accompany all hazardous material with no deviation from the printed instructions on handling and storage.
- e. In compliance with OSHA REGULATORY GUIDE – Hazardous Communication – Section 1926.59.

HOUSEKEEPING: (See Fire Protection: Housekeeping to prevent fires)

- a. Place debris, trash and waste in proper containers.
- b. Place and store materials and equipment in designated storage areas.
- c. Working areas, passageways, stairs and exits are to be kept free from all debris, equipment, tools and waste materials.
- d. Avoid spilling liquids. Wipe up spills immediately and dispose of the absorbent material properly.
- e. Use safety cans to store flammable liquids.
- f. Store oily/paint-soaked rags in approved containers and empty on a daily basis.
- g. Nails or other sharp objects protruding from lumber, from panels, etc. are to be pulled or bent over.
- h. Pieces of debris and combustible scrap shall not be allowed to accumulate. Special attention should be given to second floors and higher where adequate means shall be provided to expedite the removal of such material.



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ELECTRICITY: Above all rules, RESPECT ELECTRICITY - A little current can kill. If the contact is good, 110 volts can be just as hazardous as 10,000 volts.

- a. Before any work is started where electric power is required, the location, voltage and circuit breakers will be verified. Electrical line shall be de-energized before work is done on or near it, no matter how low the voltage.
- b. Proper Lock Out and Tag Out procedures will be followed. A permit must be obtained before commencing work (See HWD Safety Manual Section VIII)
- c. No employee shall be permitted to work where there is a possibility of contact with electric power until all safety precautions have been taken.
- d. A qualified electrician will perform all electrical work. Do not make repairs to electrical equipment or wires unless you have been trained and authorized to do such work. Persons doing electrical work or working near energized circuits should wear the appropriate safety equipment.
- e. In compliance with OSHA REGULATORY GUIDE Section 1926.400 thru and including 1926.449 and according to local, state or National Electrical Codes.
- f. All electrical equipment must be properly grounded. Ground-Fault Circuit Interrupters (GFCI): (1926.404.b.ii) All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground-fault circuit interrupters. Do not overload circuits.
- g. Perform visual inspection of all extension cords and cords on power tools for cuts, bends and exposed wires. Discard / replace all damaged cords. Extension cords must be the 3-wire type and must not be spliced.
- h. Do not leave cords where cars or trucks will run over them. Of electrical cords must cross a roadway, use protective crossover devices. Cables must be covered or elevated to protect them from damage.
- i. Only approved UL or National Electrical Manufacturers Association plugs and receptacles shall be used on all jobs. Adapters or "cheaters" shall not be used to connect electrical equipment to improper equipment.



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CONFINED SPACE ENTRY PROGRAM

GENERAL:

- a. All employees entering confined or enclosed spaces are to be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and Emergency equipment required. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.
- b. Subcontractor/Sub-subcontractors are required to inform H W Davis in a timely manner of any confined space entry and are responsible for all emergency and personal protective equipment required.
- c. H W Davis and Owner's representative will assess whether a "Permit-Required Confined Space". H W Davis Construction will be responsible to acquire all permits required and verify all Lockout/Tagout procedures are in place.
- d. Employees are never to enter a confined space until properly trained and directed to do so by H W Davis Construction.

CONFINED SPACE ENTRY PROGRAM 1926.650 & 1910.146

1. Purpose:

The purpose of this program is to ensure that safe entry methods are utilized prior to and during all work activities in permit-required confined spaces. This program is designed to help prevent personal injuries and illnesses that may be prevalent in confined spaces and for compliance with OSHA Standard 1926.650 and 1910.146.

2. Measures to prevent unauthorized entry:

Danger signs will be posted at the entrances to all permit-required confined spaces and/or written notification will be provided to the affected employees identifying the description, location, and danger posed by the listed confined spaces. All affected employees notified will sign verification of notification forms. All written notifications will be reviewed by all affected employees annually and documented as such. A sign stating "DANGER – PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER" should be placed at the entrance.

3. Excavations and Shoring:

Subpart 1926.650 thru .652, Appendix A thru F

- A. All trenches or excavation five (5) feet or more in depth shall be effectively guarded against the hazard of moving ground by sloping sides to the angles of



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repose of the material encountered or by installation of shoring system.

Trenches less than five (5) feet deep shall also be guarded when examination indicates hazardous ground movement may be expected.

- B. When sloping is used, the side slopes shall follow the requirements of the class of soil found at the site.
- C. Trenches four (4) feet deep or more shall have an adequate means of exit such as ladders or steps, located so as to require no more than fifteen (15) feet of lateral travel.
- D. When a shoring system is used, it shall conform to the requirements of the appropriate local agencies and applicable to the Guidelines of OSHA 1926.
- E. Beware of disturbed ground. Ground that has been filled or disturbed will require additional sheeting and bracing, as well as hard compact ground if there is filled ground nearby. A trench wall that is near another recently filled trench, for example, is unstable even though it appears to be compact material.
- F. Take special precautions where moisture is present. Provide extra sheeting where there is water or seepage. Keep excavation pumped out at all times and avoid any accumulation of water, day or night, until work is done.
- G. Install upper trench jacks or supports first. When trench jacks are used to hold uprights in place against trench walls, the top jack shall be installed before anyone enters the trench to place the lower jack. Shoring does not serve its purpose if men expose themselves to hazards while installing it. Installation work should be done from outside of the trench or by working progressively from top to bottom of the trench with men always in an area, which has already been shored.
- H. Adequate shields or cages shall be used when needed for safety installation or shoring. Prior to starting any excavation work, the foreman shall make a thorough survey of conditions of the site to determine, so far as is practical, the predictable hazards to employees and the kind of safeguards necessary to accomplish the work in a safe manner.
- I. Special attention shall be given to locating and protecting underground utilities and to the precautions that must be taken to protect employees from the hazards of working near such utilities.
- J. No part of any shoring systems of any excavation shall be removed until proper steps have been taken to avoid hazards to men from moving ground.

4. 1910.146 - CONFINED SPACE ENTRY: This section contains requirements for practices and procedures to protect employees in general industry from the hazards of entry into permit-required confined spaces and was not meant to apply to construction but is used as a guideline and as referenced in Construction Regulatory Guide 29 CFR 1926.



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A. 1910.146 (b) DEFINITIONS:

Acceptable entry conditions: The conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

Attendant: Any individual stationed outside of a confined space to monitor and communicate with the authorized entrants so as to detect any hazards that could endanger the entrants and who is trained to take all necessary action to ensure the safety of the entrants.

Authorized Entrant: An employee who has been trained and authorized to enter a permit space.

Blanking and blocking: The absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Double block and bleed: The closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency: Any occurrence (including any failure of a hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

Energy isolating device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:

1. A manually operated electrical circuit breaker.
2. A disconnect switch. (Note: push buttons, selector switches, and other control circuit type devices are not energy isolating devices.
3. A manually operated switch by which the conductors or a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently.
4. A line valve, block and any similar device used to block or isolate energy.



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Engulfment: The surrounding and effective capture of a person by a liquid or finely divided flowable solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction or crushing.

Entry: The action by which a person passes through an opening into a permit-required confined space. Entry is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Entry Supervisor: The person designated as capable (By education and/or specialized training) of recognizing, and evaluation employee exposure to hazardous substances or other unsafe conditions in a confined space. This person shall be capable of specifying necessary control and/or protective action, determining if acceptable entry conditions are present at a permit space where entry is planned, authorizing entry and overseeing entry operations, and for terminating entry operations.

NOTE: An Entry Supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Field Calibration Check: Checking the accuracy of an instrument's response to a known concentration of a gas. When an adequate response is not obtained, the equipment must be removed and serviced, adjusted or repaired as necessary by a factory authorized center or factory trained technician.

Hazardous Atmosphere: An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL) or lower explosive limit (LEL)
2. Airborne combustible dust at a concentration that meets or exceeds its lower flammable limit (LFL), or obscures vision at a distance of 5 feet or less.
3. Atmospheric oxygen concentration below 19.5% or above 23.5% by volume.
4. Atmospheric concentration of any toxic or hazardous substance for which a dose is above the permissible exposure limit (PEL).
5. Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

Hot Work: Work operations that are capable of producing a spark or source of ignition (riveting, welding, cutting, burning, heating, etc.).

Hot Work Permit: The employer's written authorization to perform hot work.

Immediately Dangerous to Life and Health (IDLH): Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse



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effects or that would interfere with an individual's ability to escape unaided from a permit space.

Inerting: The displacement of the atmosphere in a permit space by a non-combustible gas (such as nitrogen) to such an extent that the resulting atmosphere is non-combustible. This procedure will produce an IDLH oxygen-deficient atmosphere.

Isolation: The process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as:

Blanking or blinding;

Misaligning or removing sections, pipes, or ducts; a double block and bleed system;

Lockout / tagout of all sources of energy; or

Blocking or disconnecting all mechanical linkages.

Line breaking: The intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout / Tagout (control of hazardous energy): The placement of keyed locks and/or tags on an energy isolating device, in accordance with an established procedure, to prevent personal injury through the inadvertent start-up of a machine or other equipment while it is being serviced or repaired, and that the equipment being controlled cannot be operated until the lockout device is removed. The energy isolating device shall not be operated until the lock and/or tags are removed by the individual who originally installed it. (See Section 14 Page 29)

Lower Explosive Limit: (LEL): Minimum concentration of a flammable gas or vapor in air (usually expressed in percent by volume at sea level), which will ignite if any ignition source (sufficient ignition energy) is present.

Non-permit confined space: (designated only by the Owner), a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Oxygen enriched atmosphere: An atmosphere containing more than 23.5% oxygen by volume.

Oxygen deficient atmosphere: An atmosphere containing less than 19.5% oxygen by volume.

Permissible Exposure Limit (PEL): The air quality exposure limits established by OSHA. These may be 8 hour time weighted averages (TWA), 15 minute short term exposure limits (STEL), or ceiling limits. These limits represent the maximum



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amount to which an individual may be exposed to a contaminated or deficient atmosphere.

Permit-required Confined Space Entry Permit: A document which describes the space to be entered, the purpose for entry, verification of procedures to eliminate potential hazards, any special equipment required, pre-entry atmospheric test results, and the names of the authorized entrants and attendants. The permit must be verified by the signature of the person performing the atmospheric test checks and maintained for inspection for a period of 1 year following the entry.

Prohibited condition: Any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Purging: Method by which gasses, vapors, or other airborne impurities are displaced from the confined space.

Rescue service: The personnel designated prior to any permit space entry to rescue employees from the confined space if necessary.

Retrieval sytem: The equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from a permit space.

Testing: The process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying that tests be to be performed in the permit space.

Zero Mechanical State: The elimination of potential energy from all portions of a machine or other equipment so that the opening of a pipe(s), tube(s), hose(s), or activation of any valve, lever, or button, will not produce a movement which could cause injury.

B. 1910.146(c.) GENERAL REQUIREMENTS:

Criteria: Any space that meets **all** of the following criteria is considered a confined space:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work; and,
2. Has limited or restricted means for entry or exit; and,
3. Is not designed for continuous employee occupancy.
4. Lacks natural ventilation



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Permit-Required Confined Space:

Any space that meets all of the criteria above and has one or more of the following characteristics:

- a. Contains or has the potential to contain a hazardous atmosphere such as lack of oxygen or presence of toxic vapors; or,
- b. Contains a material that has the potential for engulfing an entrant; or,
- c. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or,
- d. Contains any other recognized serious safety and health hazard.

Non-Permit Confined Space:

Any space that meets all of the criteria but does **NOT** contain actual or potential hazards described above and **NO** such hazard will be produced as a result of the work performed inside the space.

2. Evaluation of Hazards for Initial Classification of Confined Spaces:

When initially classifying confined spaces as permit or non-permit, they must be evaluated internally and externally for potential hazards. If the space has a potential atmosphere being oxygen enriched or deficient, explosive, or contains carbon monoxide or hydrogen sulfide, a quantitative analysis is required. A 4-gas monitor which analyzes and indicates oxygen in percent by volume, lower explosive limits in percent (LEL), carbon monoxide and hydrogen sulfide expressed in parts per million (PPM) shall be used. The instrument shall be calibrated prior to use. A probe must be attached to the instrument for internal sampling. The initial test shall be conducted outside the space.

Samples shall be taken in all areas where entrants will be working or may need to access.

When testing for atmospheric hazards, the sequence shall be to first test for oxygen, then for flammable gases and vapors and then for potential toxic air contaminants.

Some spaces, due to configuration will not allow for atmospheric testing of all areas with an instrument probe from outside the space. Entry may be required in these situations. Atmospheric testing shall be conducted as far as possible in this case with an instrument probe. If safe readings are found, the entrant may then proceed to those areas that were probe tested. While inside the space, testing samples shall be read continuously in all areas that entrants will be working or may need to access.



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In the above situation, testing personnel must carry with them a self-contained breathing apparatus (SCBA) unit that provides at least 5 minutes of air or more. The entrant must immediately don the SCBA and exit the space if the alarm activates on the test instrument.

The initial evaluation and classification shall be stopped if any quantitative readings other than those below are found. The following are considered acceptable readings for initial entry. During entry, atmospheric readings must remain within the limits allowed by the entry permit.

1. Oxygen between 19.5% and 23.5% by volume.
2. Lower flammable limit reading of 0% LFL.
3. Carbon monoxide reading of 0 ppm.
4. Hydrogen sulfide reading of 0 ppm.

If a space has unknown atmospheric hazards that cannot be quantified or detected by a 4-gas monitor, measures shall be taken to ensure no entry is allowed into the space.

The space may be classified as a non-permit space provided that no other potential hazards exist and the initial atmospheric analysis reveals levels within permissible limits. However, if the space has the potential of developing an atmosphere capable of causing inability for self-rescue, unconsciousness, incapacitation, injury, acute illness, serious physical harm or death, such space must be classified as permit-required.

3. Workplace Analysis and Hazard Evaluation:

Examples of confined spaces include, but are not limited to storage tanks, sewers, utility vaults and tunnels, crawl spaces, and sewer access holes. These spaces pose possible dangers from atmospheric conditions, engulfment, entrapment, and exposure to moving parts.

4. Entry Permit System:

The issue and control of any entry permit shall meet the following minimum requirements:

1. Prior to entry into any permit-required confined space, an entry permit shall be completed and signed by an authorized entry supervisor. The permit shall be made available to all authorized entrants prior to entry by conspicuously posting it near the entrance to the permit space, or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed. The duration of the permit may not exceed the time required to complete the task identified on the permit.



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2. All items on the permit must be completed, if applicable, including the name of each entrant and attendant. The entry permit shall identify the following:
 - A. The specific permit space;
 - B. The purpose of entry;
 - C. The date and duration of entry;
 - D. Names of any authorized entrants within the permit space which will allow the attendant to keep track of who is inside the permit space;
 - E. The names of any qualified attendants;
 - F. The name of the entry supervisor, with a space for the signature of the entry supervisor who originally authorized entry;
 - G. The hazards of the permit space to be entered;
 - H. Specific measures taken to isolate the permit space and to eliminate or control hazards before entry (ventilation, lockout/tagout, flushing, purging, etc.);
 - I. Acceptable entry conditions (see section F of this program);
 - J. Any required atmospheric test results prior to and during entry, the name of each person who conducted the tests, and the time each test was conducted;
 - K. Rescue and emergency services, including means to summon, emergency numbers, and equipment to use.
 - L. The communication and procedures that will be used to maintain contact between the entrants and the attendant;
 - M. Any required equipment, including personal protective equipment, testing equipment, communications equipment, rescue equipment, and any other equipment necessary to perform the entry safely and as required by this program;
 - N. Any additional information necessary for the specific space identified on the entry permit in order to ensure the safety of the affected employees;
 - O. Any other permits, such as for hot work, that have been issued to authorized specific work in the space identified on the entry permit.
3. The entry supervisor shall terminate entry and cancel the entry permit when:
 - A. The entry operations identified on the entry permit have been completed; or,
 - B. A condition that is not allowed under the entry permit occurs in or near the permit space.

Note: If the entry crew, or crew members change, such changes must be documented in the confined space entry log book.



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5. Entry Requirements:

Following are requirements that shall apply to all permit-required confined space entries:

1. Notify Owner's Representative, Engineering and Maintenance Departments prior to, and at the completion of the entry
2. The entry supervisor shall complete all applicable pre-entry duties (See Pre-Entry Procedure Guideline under Entry / Permit Forms, Tab c)
3. The entry supervisor shall verify all items on the entry permit, before authorizing entry. The completed permit shall be posted so that all entrants can review it.
4. Energy isolation devices (lockout/tag out) shall be put into place.
5. All pre-entry procedures specific to the space shall be followed prior to and during entry.
6. A pre-entry briefing shall be conducted by the entry supervisor as outlined in section (D) of this program with all affected employees, subcontractors, owner and contractor.
7. Any conditions making it unsafe to remove an entrance cover shall be eliminated prior to removing the cover;
8. A railing, temporary cover, or other temporary barrier shall be placed around the opening promptly, to prevent an accidental fall through the opening, and to protect entrants working in the space from objects that may fall into the permit space;
9. The internal atmosphere of the permit space shall be tested prior to entry using a calibrated direct-reading instrument which reads oxygen percentage, lower explosive limit percentage, carbon monoxide in ppm, or any other gases, vapors, dusts or fumes that reasonably be expected to be present. The atmosphere inside the permit space shall be tested in the following order:
 - a. Oxygen content;
 - b. Flammable gases and vapors;
 - c. Potential toxic air contaminants.
10. Continuous forced air ventilation shall be set-up and used as follows:
 - a. Entrants shall not enter the permit space until the forced air ventilation has eliminated any hazardous atmosphere;

Note: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards.

- b. The forced air ventilation shall be directed as to ventilate the immediate areas where any entrants are working or will be working inside the permit space and shall continue until all entrants have left the space.



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- c. The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.
11. All personnel shall be provided with any necessary personal protective equipment to ensure their safety from all potential hazards.
12. Entrants while inside the permit space shall wear a personal oxygen reading monitor.
13. All communications equipment necessary to maintain direct and constant contact with all entrants inside the space shall be in place and operable.
14. Prior to entry, a retrieval system or method shall be in place to facilitate a non-entry rescue as outlined in this program.
15. An attendant shall be positioned outside the permit space before an entrant enters the space to perform duties as outlined.

6. Safe Permit Space Entry Operations:

Acceptable entry conditions are those in which:

1. All hazards in a permit-required confined space have been eliminated through engineering controls, ventilation, or some other effective means;
2. Authorized entrants are protected by the use of Personal Protective Equipment against any remaining or potential hazards; and,
3. All procedures of this program are being followed.
4. Any conditions making it unsafe to remove an entrance cover are eliminated before the cover is removed.
5. When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.

7. Training:

All designated employees authorized to participate in permit-required confined space entry operations will be thoroughly trained so that they acquire the understanding, knowledge, and skills necessary for the safe performance of the tasks assigned to them. Training will be conducted to assure proficiency in the required duties, and when new or revised procedures are introduced.

Training shall include practical exercises in a safe environment covering the use of tools, personal protective equipment, communication equipment, and emergency notification and rescue procedures. Outside rescue services will be invited to attend practical on-site training exercises on at least an annual basis.



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Refresher training will be conducted for each affected employee on an annual basis. Certification of all training shall be documented for each affected employee. The certification will contain each employee's name, the signature of the trainer, and the dates of the training.

Training will be conducted:

1. Before the employee is first authorized and assigned confined space duties.
2. Whenever there is a change in permit-space operations that presents a hazard of which an authorized employee has not previously been trained.
3. Before there are changes in the authorized employee's duties.
4. Whenever there is a reason to believe that an authorized employee has deviated from the permit-required entry procedures, or that there are inadequacies in the employee's knowledge or use of the procedures.

8. Equipment Provision:

Employees will be provided at no cost, all appropriate, adequate, and necessary personal protective equipment (PPE), testing and monitoring equipment, ventilation equipment, communications equipment, lighting equipment, barriers and shields, ladders or other entrance/exit equipment, rescue and emergency equipment, and any other equipment necessary for safe entry, exit, or rescue from a permit-required confined space.

9. Active Role Designations and Duties:

1. Duties of Authorized Entrants

All authorized entrants shall:

1. Review the entry permit and participate in a pre-entry briefing with the Entry Supervisor;
2. Know the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and the consequences of exposure;
3. Properly use all required equipment;
4. Communicate with the attendant as necessary to enable the attendant to monitor entrant's status, and to enable the attendant to alert entrants if a situation occurs that would require the entrants to evacuate the space;
5. Alert the attendant whenever:
 - a. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation; or,
 - b. The entrant detects any prohibited condition not allowed by the permit.
6. Exit from the permit space as quickly as possible whenever:



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- a. An order is given to evacuate by the attendant or entry supervisor; or,
- b. The entrant recognizes any warning sign or symptom of exposure to dangerous situations; or,
- c. The entrant detects a prohibited condition not allowed by the permit; or,
- d. An evacuation alarm is activated on any monitoring device.

Note: Entrants can rotate during the course of a confined space entry, as long as the designated entry crew members are entered in the confined space entry log book.

2. Duties of Attendants:

All attendants shall:

1. Review the entry permit and participate in a pre-entry briefing with the entry Supervisor.
2. Know the potential hazards during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
3. Be aware of possible behavioral effects of potential hazard exposure to authorized entrants;
4. Continuously maintain an accurate count (number) of authorized entrants in the permit space and ensure that the means used to identify authorized entrants accurately identifies who is in the space;
5. Remain outside of the permit space during entry operations or until relieved by another qualified attendant;

Note: The name of any relief attendant must be entered in the log book. Relief attendants must review the entry permit before relieving the prior attendant.

6. Communicate with authorized entrants as necessary to monitor the status of the entrants, and to alert the entrants if evacuation is necessary;
7. Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the permit space;
8. Order all authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - a. If the attendant detects a condition prohibited by the permit; or,
 - b. If the attendant detects any behavioral effects of hazard exposure in any authorized entrants in the permit space; or,
 - c. If the attendant detects any situation outside of the permit space that could endanger entrants; or,
 - d. If the attendant cannot effectively and safely perform all required duties;



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9. Summon rescue and other emergency services, and activate rescue procedures as soon as it is determined that the authorized entrants may need assistance to escape from any permit space hazards;
 1. Take the following action when unauthorized persons approach, enter, or attempt to enter the permit space:
 - a. Warn unauthorized persons that they must stay away from the permit space;
 - b. Order the unauthorized persons to exit immediately if they have entered the permit space;
 - c. Inform the authorized entrants and entry supervisor of any unauthorized persons that have entered the permit space;
 2. Perform non-entry rescue if necessary;
 3. Not perform any duties that might interfere with the duties of the attendant to monitor and protect the authorized entrants.

3. Duties of the Entry Supervisor

The Entry Supervisors selected by the department shall be responsible for maintaining adequate training on confined space safety, and technical knowledge required for directing safe entry into confined spaces.

The Entry Supervisor shall:

1. Complete the entry permit as defined in this program and submit to the Safety Director, Owner's Representative or Engineering Department
2. Conduct a pre-entry briefing with authorized personnel entering and attending the permit space. Each individual shall be informed of:
 - a. Any special or potential hazards (welding, cutting, painting, solvent use, slippery floors, dust, chemicals);
 - b. How to recognize the signs and symptoms of potential exposures;
3. Inspect all safety gear.
4. Know the potential hazards during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
5. Verify by checking the permit that:
 - a. All tests specified by the permit have been conducted;
 - b. All procedures and equipment are in place before endorsing the permit and allowing entry to begin;
 - c. Rescue services and equipment are available and means for summoning operational.
6. Terminates the entry and cancels the permit if:
 - a. The entry operations covered by the entry permit have been completed; or,



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- b. A condition that is not allowed under the entry permit occurs in or near the permit space.
- 7. Remove unauthorized persons who enter or attempt to enter the permit space during entry operations;
- 8. Determine, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Note: The Entry Supervisor may also serve as an attendant.

10. Rescue and Emergency Services:

Rescue and emergency services will be accomplished by one of the following:

1. Qualified Owner personnel will enter the permit space to perform rescue services under the following requirements:

- a. Each member of the rescue team shall be provided with and trained to properly use the personal protective and rescue equipment necessary for making rescues from permit spaces;
- b. Each member of the rescue service shall be trained to perform the assigned rescue duties and trained in the duties of authorized attendants;

Each member of the rescue service shall practice making permit space rescues at least annually, by means of practical simulated rescue operations in which they remove mannequins, or actual persons, from the actual permit spaces or from representative permit spaces. These representative spaces will simulate the types of permit spaces from which rescue is to be performed, with respect to opening size, configuration, and accessibility;

- a. Each member of the rescue service shall be trained in basic first-aid and in CPR and maintain current certification. Owner will arrange to have an outside agency perform permit space rescue in which case:
 - a. The local Fire Department will be summoned in the event of a confined space emergency.
 - b. The responding Fire Department personnel shall be informed of the hazards they may confront when called upon to perform a rescue.
 - c. Owner must provide the fire department with access to all permit spaces from which rescue may be necessary so that the rescue service can



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develop appropriate rescue plans and practice rescue operations on site. The fire department rescue personnel will be invited to perform these practical on site rescue exercises at least annually.

2. Non-entry rescues:

- a. To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.
- b. Each entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back, near shoulder level, or above the entrant's head. Wristlets may be worn in place of the chest or full body harness if it is proven that the use of the chest or full body is not feasible or creates a greater hazard, and that the use of the wristlets is the safest and most effective alternative which must be documented in the confined space entry log book.
- c. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary.
- d. A mechanical device shall be set-up and available to retrieve personnel from vertical type permit spaces more than 5 feet deep. Examples of these spaces are, but not limited to, utility vaults, valve pits, sand filters, sewer access holes, sumps, lift stations, etc.,

If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other written information is required to be kept at the worksite, that MSDS or written information shall be made available to the medical facility and emergency medical personnel treating the exposed entrant.

11. Entry of Non-Permit Spaces: (unless Owner designates all confined space entry to be permit required)

Confined spaces classified as non-permit do not need written procedures for authorized entry. However, when there are changes, or possible changes in the use or configuration of the non-permit confined space that might increase the hazards to entrants, the space shall be reevaluated and, if necessary, re-classified as a permit-required space.



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12. Procedures During Entry:

While entrants are inside the permit space, the following procedures shall be followed through the entry process:

1. An authorized attendant shall remain outside the permit space during entry operations and perform all attendant duties as outlined in section (L) of this program.
2. The atmosphere shall be tested periodically to ensure that the accumulation of a hazardous atmosphere does not occur. These tests shall be recorded in the confined space entry log book.
Note: If the entrant is wearing the four-gas monitor, he/she shall periodically test the atmosphere and relay the readings to the attendant for recording in the log book.
3. The surrounding areas outside the space shall be surveyed periodically to avoid hazards such as drifting vapors from vehicles, tanks, piping, sewers, etc.
 - a. All entrants shall evacuate the space immediately;
 - b. The space shall be evaluated to determine the cause of the hazardous atmosphere, and;
 - c. Measures shall be implemented to protect entrants from the hazardous atmosphere before re-entry is authorized.Note: Any time all entrants leave the permit space, atmospheric testing must be conducted again before the space is re-entered, and recorded in the log book

13. Completion of Entry:

The following shall be completed after the all entry operations identified on the entry permit have been completed:

1. The entry supervisor shall verify that all entrants are out of the permit space.
2. All energy isolating devices should be removed and energy restored according to standard procedures in Lockout/Tag out section
3. Remove ventilation and other equipment from around the permit space.
4. All entrance covers shall be replaced to prevent falls or unauthorized entry into the space.
5. The entry supervisor shall terminate the entry permit.



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6. The entry supervisor will send a copy of the entry permit and all other attachments to the Owner within three days.

B. CONFINED SPACE ENTRY PROCEDURE

UNDER NO CIRCUMSTANCES IS ANY EMPLOYEE OF H W DAVIS CONSTRUCTION, NOR THAT OF ANY SUBCONTRACTOR OR SUB-SUBCONTRACTOR TO ENTER ANY AREA WITH RESTRICTED ACCESS BEFORE THAT AREA HAS BEEN ASSESSED, TESTED AND ALL PRECAUTIONS TAKEN PURSUANT TO SUCH ASSESSMENT AND TESTING.

1. Initial assessment of conditions:

- a. Air testing will be conducted by using an oxygen deficiency monitor and/or any hazardous gas monitor required. Readings will be accurately documented at each interval as described in paragraph c. If there are no dangerous readings, the space will be classified as a "non-permit" confined space. If any hazardous readings are registered, record all readings and proceed to Paragraph b.
- b. If ventilation fans are required, a second test will be performed at the same intervals as the first. Ventilating fans will be positioned and a second reading will be taken noting any changes in readings. The two recordings will be compared and evaluated.
- c. The gas monitors will be suspended from a secure location above the confined space. A reading will be taken at intervals of every 10 lineal feet at the perimeter and at depths of every 3 feet including the bottom. If the alarm should sound, testing will be discontinued and the area further evaluated.
- d. Gas monitors will be recalibrated or resent (if required) per manufacturer's recommendation before each subsequent test.
- e. Gas monitors will remain in the confined space as long as personnel are present within.
- f. Determine if Lockout/Tag out of any system, equipment or machinery is required and ensure proper tags and locks are in place. (See Lockout/Tag out Section 14)

2. List of all materials used in the Confined Space:

- a. Each subcontractor will furnish to H W Davis Construction, Inc. a chemical list for every material that will be used within the confined space. A Material Data Safety Sheet for each material must accompany the list.



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- b. H W Davis Construction, Inc. will compile a master list to present to the Owner. A copy of the daily permit (if required) and all MSDS will be displayed as close to the entry point as possible in a conspicuous place for emergency personnel.
- c. H W Davis Construction, Inc. will look to the Owner for advisement of existing contaminants or chemical residue that may be encountered and the Owner will be responsible to advise H W Davis Construction of hazards arising from mixtures of our imported materials and their existing conditions.
- d. Each Subcontractor Foreman/Supt. will report to H W Davis Construction Field Supt. at the end of the day with planned work and a list of materials to be used the NEXT day.
- e. Should the area be reclassified to require a permit due to hazardous materials being introduced during the course of construction, H W Davis Construction Field Supt. will submit the Daily Work Permit Application to the owner at the end of each day for work to be completed the next day.

3. Daily Monitoring – Authorized Personnel Only

A. Non-Permitted Confined Space:

- a. An initial assessment will be performed on a daily basis before entry of the space.
- b. The space will be monitored continually by an authorized entrant wearing the gas monitor or providing a stationary mounting for the monitor within the location of work.

B. Permit Required Confined Space:

- 1. H W Davis Construction, Inc. will assign an Entry Supervisor (or “attendant”) that will restrict entry of non-authorized entrants and constantly maintain an accurate count of authorized entrants in the permit space. The Entry Supervisor shall at all times remain outside the permit space.
- 2. An “authorized entrant” is someone who is certified for confined space work and is authorized by his or her employer to enter a confined space permit area.
- 3. The Entry Supervisor will maintain a visual survey of the area on a continual basis. Gas Monitor readings will be documented noting type of test, the exact lineal foot location, the depth and time of each test. The Entry Supervisor will remain in the top secured area and maintain visual contact of the area at all times. The Entry Supervisor shall not leave the area until another competent attendant is present.



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4. Occupancy of the confined space will be limited to essential personnel only for the duration of the permit. A full body harness connected to a retrieval system and/or any other OSHA required system would be required.

4. Evacuation Drill

At the onset of the project, a mock drill will be performed. A designated meeting place will be specified at this time and all entrants except as noted in Paragraph 5.d. shall precede to that area.

5. Evacuation

- a. Any entrant observing behavioral effects of hazard exposure in any attendant shall notify the Entry Supervisor/Superintendent immediately. The Entry Supervisor/Superintendent will then give the order to evacuate and call 911.
- b. Lay down all tools - do not throw them
- c. Proceed swiftly but in an orderly manner to the ladder. Upon exiting the ladder, gather as much slack of the retrieval rope as you can to prevent falls. Proceed to the pre-determined meeting area immediately.
- d. The first person exiting the ladder should report to the Entry Supervisor/Superintendent in the event assistance is needed in retrieval.
- e. The first person reaching the pre-determined meeting area should account for all entrants.

6. Retrieval Team

A RETRIEVAL TEAM IS NOT A RESCUE TEAM - All treatment and subsequent actions upon the retrieval of a fallen entrant should be left to 911 (RESCUE TEAM) or personnel extensively trained such duties.

The first person exiting the ladder should report to the Entry Supervisor/Superintendent and be ready to assist should retrieval of an attendant be necessary. Otherwise, proceed to the pre-determined meeting place.

A "Retrieval System" means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.



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7. Reclassification to a Non-Permit Confined Space

If a permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

Note: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards.

The department shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification shall be made available to each employee entering the space.

If hazards arise within a permit space that has been declassified to a non-permit confined space under this section, each employee in the space shall exit the space. The Department shall then reevaluate the space and determine whether it must be reclassified as a permit space, in accordance with other applicable provisions.

8. COORDINATING ENTRY OPERATIONS

All outside contractors performing work in confined space entry permit areas shall be informed of any fire, explosion, health or other safety hazards of that confined space. This information shall be based on current or past history of the confined space and the nature of the contractor's work procedure in making such disclosure.

Each Department shall inform contractors of H W Davis Construction, Inc. safety rules and emergency plans which may be applicable to the contractor's employees. Contractors and their employees must not be allowed to enter a confined space until the provisions of this program have been satisfied. When both company and contractor personnel are working in or near permit spaces, their entry operations must be coordinated to avoid endangering any personnel.

At the conclusion of the entry operations, the contractor must be debriefed regarding the permit space program that was followed and concerning any hazards confronted or created in permit spaces during entry operations.



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It is the responsibility of each contractor who is retained to perform permit space entry operations to obtain any available information regarding permit space hazards and entry operations. They must also coordinate entry operations with H W Davis Construction, Inc. when both will be working in or near permit spaces. The company must be informed of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operations.

Subpart AA 1926.1201-1213 – CONFINED SPACES

- §1926.1200 Reserved
- §1926.1201 Scope
- §1926.1202 Definitions
- §1926.1203 General Requirements
- §1926.1204 Permit-Required Confined Space Program
- §1926.1205 Permitting Process
- §1926.1206 Entry Permit
- §1926.1207 Training
- §1926.1208 Duties of Authorized Entrants
- §1926.1209 Duties of Attendants
- §1926.1210 Duties of Entry Supervisors
- §1926.1211 Rescue and Emergency Services
- §1926.1212 Employee Participation
- §1926.1213 Provisions of Documents to Secretary

§1926.1201 SCOPE:

- (a) This standard proffers requirements for practices and procedures to safeguard employees involved in construction undertakings at a worksite with one or more confined spaces, subject to the exceptions in paragraph (b) of this section.**

NOTE: To paragraph §1926.1201(a). Examples of locations where confined spaces may occur include, but are not limited to, the following: Bins; boilers; pits (such as elevator, escalator, pump, valve or other equipment); manholes (such as sewer, storm drain, electrical, communication, or other utility); tanks (such as fuel, chemical, water, or other liquid, solid or gas); incinerators; scrubbers, concrete pier columns; sewers; transformer vaults; heating, ventilation, and air-conditioning (HVAC) ducts; storm drains; water mains; precast concrete and other pre-formed manhole units; drilled shafts; enclosed beams; vessels; digesters; lift stations; cesspools; silos; air receivers; sludge gates; air preheaters; step up transformers; turbines; chillers; bag houses; and/or mixers/reactors.



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- (b) **Exceptions.** This standard does not apply to: (1) Construction work regulated by §1926 subpart P-Excavations. (2) Construction work regulated by §1926 subpart S – Underground Construction, Caissons, Cofferdams and Compressed Air. (3) Construction work regulated by § subpart Y-Diving.
- (c) Where this standard relates and there is a provision that addresses a confined space hazard in a different applicable OSHA standard, the employer must observe with both that requirement and the pertinent provisions of this standard.

§1926.1202(c) DEFINITIONS:

Acceptable Entry Conditions: Means the conditions that must exist in a permit space before an employee may enter that space, to guarantee that employees can safely go into, and safely work within, the space.

Attendant: means an individual posted outside one or more permit spaces who evaluates the status of authorized entrants and who must perform the duties specified in 1926.1209

Authorized Entrant: means an worker who is authorized by the entry supervisor to come into a permit space.

Barrier: means a physical obstruction that blocks or limits access.

Blanking or blinding: means the total closure of a pipe, line or duct by fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of tolerating the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Competent Person: means one who is capable of recognizing existing and foreseeable hazards in the surroundings or working conditions which are unsanitary, hazardous, or unsafe to employees, and who has the authorization to take prompt corrective measures to eradicate them.

Confined Space: mean a space that:

- Is large enough and so configured that an employee can bodily enter it.
- Has limited or restricted means for entry and exit; and
- Is not designed for continuous employee occupancy

Control: means the action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor: is the employer that has overall responsibility for construction at the worksite.



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NOTE: If the Controlling Contractor owns or manages the property, then it is both a Controlling Employer and Host Employer.

Double Block and Bleed: means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two close valves.

Early-warning System: means the method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems included, but are not limited to: alarms activated by remote sensors, and lookouts with equipment for immediately communicating with the authorized entrants and attendants.

Emergency: means any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants.

Engulfment: means the surrounding and effective capture of a person by a liquid or finely divided (flow-able) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.

Entry: means the action by which any part of a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plan of an opening into the space, whether or not such action is intentional or any work activities are actually performed in the space.

Entry Employer: means any employer who decides that an employee is directs will enter a permit space.

NOTE: An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Entry Permit: (permit) means the written or printed document that is provided by the employer who designated the space to allow and control entry into a permit space and that contains the information specified in §1926.1206 of this standard.

Entry Rescue: occurs when a rescue service enters a permit space to rescue one or more employees.

Entry Supervisor: means the qualified person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this standard.

NOTE: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of entry operation.

Hazard: means a physical hazard for hazardous atmosphere. See definitions below.



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Hazardous atmosphere: means an atmosphere that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
2. Airborne combustible dust at a concentration that meets or exceeds its LFL;
NOTE: This concentration may be approximated as a condition in which the combustible dust obscures vision at a distance of 5 feet (1.52 meters) or less.
3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
4. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart D – Occupational Health and Environmental Control, or in Subpart Z – Toxic and Hazardous Substances, of this part and which could result in employee exposure in excess of its dose or permissible exposure limit;

NOTE: Atmospheric concentration of any substance that is not capable of causing death, incapacitation, and impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

5. Any other atmospheric condition that is immediately dangerous to life or health.
NOTE: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard, §1926.59 of this part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Host Employer: means the employer that owns or manages the property where the construction work is taking place.

NOTE: If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity the information specified in §1206 (h)(1), OSHA will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, OSHA will treat the owner of the property as the host employer. In no case will there be more than one host employer.

Hot Work: mean operations capable of providing a source of ignition (for example, riveting, welding, cutting burning, and heating).

Immediately dangerous to life or health (IDLH) means any condition that would interfere with an individual's ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.

NOTE: Some materials – hydrogen fluoride gas and cadmium vapor, for example-may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim “feels normal” after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be “immediately” dangerous to life or health.

Inerting: means displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.



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NOTE: This procedure produces an IDLH oxygen-deficient atmosphere.

Isolate or isolation: means the process by which employees in a confined space are completely protected against the release of energy and material into the space, and contact with a physical hazard, by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; blocking or disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or restricted means for entry or exit: means a condition that has a potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.

Line breaking: means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume pressure, or temperature capable of causing injury.

Lockout: means the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lower flammable limit or lower explosive limit: means the minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or monitoring: means the process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.

Non-entry rescue: occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.

Non-permit confined space: means a confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space, as defined in this subpart.

Oxygen deficient atmosphere: means an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere: means an atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required confined space: (Permit Space) means a confined space that has one or more of the following characteristics: (1) Contains or has a potential to contain a hazardous atmosphere; (2) Contains a material that has the potential for engulfing an entrant; (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or (4) contains any other recognized serious safety or health hazard.

Permit-required confined space program: (Permit Space Program) means the employer's overall program for controlling, and, where appropriate, for protecting



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employees from, permit space hazards and for regulating employee entry into permit spaces.

Physical Hazard: means an existing or potential hazard that can cause death or serious physical damage. Examples include, but are not limited to: explosives (as defined by paragraph (n) of §1926.914, definition of “explosive”); mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment’ noise’ and inwardly converging surfaces. Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited Condition: means any condition in a permit space that is not allowed by the permit, during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.

Qualified Person: means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Representative Permit Space: means a mock-up of a confined space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the permit space that authorized entrants enter.

Rescue: means retrieving, and providing medical assistance to, one or more employees who are in a permit space.

Rescue Service: means the personnel designated to rescue employees from permit spaces.

Retrieval system: means the equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Serious Physical Damage: means an impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout: means: (1) Placement of a tagout device on a circuit or equipment that has been de-energized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and (2) The employer ensures that (i) tagout provides equivalent protection to lockout, or (ii) that lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.

Test or testing: means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing include specifying the tests that are to be performed in the permit space.



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NOTE: Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

Ventilate or ventilation: means controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of §1926.57 – Ventilation.

§1926.1203 GENERAL REQUIREMENTS:

- (a) Prior to beginning work at a worksite, each employer must confirm that a competent person identifies all confined spaces in which one or more of the workers it directs may work, and identifies each space that is a permit space, through evaluation and deliberation of the elements of that space, including testing as needed.**
- (b) If the workplace has one or more permit spaces, the employer who identifies, or who receives notice of, a permit space must:**
 - (1) Notify exposed employees by posting danger signs or by any other equally effective means, of the presence and location of, and the danger posed by, each permit space, and**

Note to paragraph §1926.1203(b)(1). A sign reading “DANGER – PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER” or using other similar language would satisfy the requirement for a sign.
 - (2) Notify, in a timely manner and in a method other than posting, its employees’ authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space**
- (c) Each employer who identifies, or obtains notification of, a permit space and has not certified employees it directs to work in that space must take effective actions to prevent those employees from entering that permit space, in addition to observing all other applicable requirements of this standard.**
- (d) Should any employer(s) decide that employees it directs will enter a permit space, that employer must have a written permit space program that complies with §1926.1204 implemented at the construction site. The written program must be accessible prior to and during entry operations for inspection by employees and their authorized representatives.**
- (e) An employer may use the alternate procedures specified in paragraph §1926.1203(e)(2) for entering a permit space only under the circumstances set forth in paragraph §1926.1203(e)(1).**
 - (1) An employer whose employees enter a permit space need not comply with §§1926.1240 through 1206 and §§1926.1208 through 1211, provided that all of the subsequent conditions are met:**
 - (i) The employer can prove that all physical hazards in the space are eradicated or isolated through engineering controls so that the only**



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hazard posed by the permit space is an actual or potential hazardous atmosphere;

- (ii) The employer can demonstrate that continuous forced air ventilation alone is adequate to maintain that permit space safe for entry, and that, in the event the ventilation system discontinues working, entrants can exit the space safely;
- (iii) The employer develops monitoring and inspection data that supports the demonstrations required by paragraphs §1926.1206(e)(1)(ii);
- (iv) If any initial entry of the permit space is essential to obtain the data required by paragraph §1926.1203 (e)(1)(iii), the entry is performed in compliance with §§1926.1204 through 1211 of this standard;
- (v) The determinations and supporting data required by paragraphs §1926.1203(e)(1)(i), (e)(1)(ii), and (e)(1)(iii) are documented by the employer and are made available to each employee who enters the permit space under the terms of paragraph §1926.1203(e) or to that employee's authorized representative, and
- (vi) Entry into the permit space under the terms of paragraph §1926.1203(e)(1) is performed in accordance with the requirements of paragraph §1926.1203(e)(2).

NOTE: to paragraph §1926.1203(e)(1). See paragraph §1926.1203(g) for reclassification of a permit space after all hazards within the space have been eliminated.

(2) The following requirements relate to entry into permit spaces that meet the conditions set forth in paragraph §1926.1203(e)(1):

- (i) Any conditions making it unsafe to remove an entrance cover must be eradicated before the cover is removed.
- (ii) When entrance covers are removed, the opening must be immediately guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.
- (iii) Prior to an employee entering the space, the internal atmosphere must be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee, who enters the space, or that employee's authorized representative, must be provided an opportunity to observe the pre-entry testing required by this paragraph.
- (iv) No hazardous atmosphere is permitted within the space whenever any employee is inside the space.
- (v) Continuous forced air ventilation must be used, as follows:
 - (A) An employee must not enter the space until the forced air ventilation has eliminated any hazardous atmosphere;



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- (B) The forced air ventilation must be so directed as to ventilate the immediate areas where an employee is or will be present within the space and must continue until all employees have left the space;
 - (C) The air supply for the forced air ventilation must be from a clean source and must not increase the vulnerabilities in the space.
 - (vi) The atmosphere within the space must be continuously observed unless the entry employer can demonstrate that equipment for continuous monitoring is not commercially available or periodic monitoring is sufficient. If continuous monitoring is used, the employer must ensure that the monitoring equipment has an alarm that will notify all entrants if a specified atmospheric threshold is achieved, or that an employee will check the monitor with sufficient frequency to ensure that entrants have adequate time to escape. If continuous monitoring is not used, periodic monitoring is required. All monitoring must ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee, who enters the space, or that employee's authorized representative, must be provided with an opportunity to observe the testing required by this paragraph.
 - (vii) If a hazard is detected during entry:
 - (A) Each employee must exit the space immediately
 - (B) The space must be assessed to determine how the hazard developed; and
 - (C) The employer must implement measures to safeguard employees from the hazard before a subsequent entry takes place.
 - (viii) The employer must ensure a safe method of entering and exiting the space. If a hoisting system is used, it must be designed and manufactured for personnel hoisting, however, a job-made hoisting system is permissible if it is approved for personnel hoisting by a registered professional engineer, in writing, prior to use.
 - (viii) The employer must confirm that the space is safe for entry measures required by paragraph §1926.1203(e)(2) have been taken, through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification must be made before entry and must be made available to each employee entering the space or to that employee's authorized representative.
- (f) When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, or some indication that the initial assessment of the space may not have been adequate, each entry employer must have a competent person reevaluate**



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that space and, if necessary, reclassify it as a permit-required confined space.

(g) A space classified by an employer as a permit-required confined space may only be reclassified as a non-permit confined space when a competent person determines that all of the applicable requirements in paragraphs §1926.1203(g)(1) through (g)(4) have been met:

- (1) If the permit space poses no real or potential atmospheric hazards and if all hazards within the space are eliminated or isolated without entry into the space (unless the employer can demonstrate that doing so without entry is infeasible), the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated or isolated.
- (2) The entry employer must eliminate or isolate the hazards without entering the space, unless it can demonstrate that this is infeasible. If it is necessary to enter the permit space to eliminate or isolate hazards, such entry must be performed under §1926.1204 through 1211 of this standard. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated or isolated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated or isolated;
NOTE to paragraph §1926.1203(g)(2). Control of atmospheric hazards through forced air ventilation does not constitute elimination or isolation of the hazards. Paragraph §1926.1203(e) covers permit space entry where the employer can demonstrate that forced air ventilation alone will control all hazards in the space.
- (3) The entry employer must document the basis for determining that all hazards in a permit space have been eliminated or isolated, through a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification must be made available to each employee's authorized representative, and
- (4) If hazards arise within a permit space that has been reclassified as a non-permit space under paragraph §1926.1203(g), each employee in the space must exit the space. The entry employer must then reevaluate the space and reclassify it as a permit space as appropriate in accordance with all other applicable provisions of this standard.

(h) Permit Space Entry Communication and Coordination:

- (1) Prior to entry operations beginning, the host employer (**Owner**) will provide the following information, if it has it, to the controlling contractor (**H W Davis Construction**).
 - (i) The site and location of each known permit space;
 - (ii) The hazards or potential hazards in each space or the reason it is a permit space;



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- (iii) And precautions that the host employer (**H W Davis Construction**) or any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.
- (2) Before entry operations begin the controlling contractor (**H W Davis Construction**) will:
 - (i) Obtain the host employer's (**owner's**) information about the permit space hazards and previous entry operations, and
 - (ii) Provide the following information to each entity entering a permit space and any other entity at the worksite whose activities could foreseeably result in a hazard in the permit space:
 - (A) The information received from the host employer (**Owner**)
 - (B) Any additional information the controlling contractor (**H W Davis Construction**) has about the subjects listed in paragraph (h)(1) of this section, and
 - (C) The precautions that the host employer (**Owner**), controlling contractor (**H W Davis Construction**), or other entry employers (**H W Davis Construction Subcontractors**) implemented for the protection of employees in the permit spaces.
- (3) Prior to entry operation beginning §1926.1203(h)(3), each entry employer (**H W Davis Construction Subcontractors**) will:
 - (i) Obtain all of the controlling contractor's (**H W Davis Construction's**) information regarding permit space hazards and entry operations; and
 - (ii) Inform the controlling contractor (**H W Davis Construction**) of the permit space program that the entry employer (**H W Davis Construction Subcontractor's**) will follow, including any hazards likely to be confronted or created in each permit space.
- (4) The controlling contractor (**H W Davis Construction**) and entry employer(s) (**H W Davis Construction Subcontractor's**) will coordinate entry operations when: §1926.1203(h)(4)
 - (i) More than one person(s) performs permit space entry at the same time; or
 - (ii) Permit space entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed.
- (5) After entry operations: §1926.1203(h)(5)
 - (i) The controlling contractor (**H W Davis Construction**) must debrief each entity that entered a permit space regarding the permit space program followed and any hazards confronted or created in the permit space(s) during entry operations;
 - (ii) The entry employer (**H W Davis Construction Subcontractor's**) will inform the controlling contractor in a timely manner of the permit



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space program followed and of any hazards confronted or created in the permit space(s) during entry operations; and

- (iii) The controlling contractor (**H W Davis Construction**) will inform the host employer (**Owner**) of the information exchanged with the entry entities pursuant to this subparagraph.

NOTE: To paragraph §1926.1203(h). Unless a host employer (**Owner**) or controlling contractor (**H W Davis Construction**) has or will have employees in a confined space, it is not required to enter any confined space to collect the information specified in this paragraph (h).

- (iv) If there is no controlling contractor (**H W Davis Construction**) present at the worksite, the requirements for, and role of, controlling contractors (**H W Davis Construction**) in §1926.1203 must be fulfilled by the host employer (**Owner**) or other employer who arranges to have employees of another employer perform work that involves permit space entry.

§1926.1204 PERMIT REQUIRED CONFINED SPACE PROGRAM

Each entry employer (**H W Davis Construction Subcontractor**) will:

- (a) Execute the measures necessary to prevent unauthorized entry;
- (b) Identify and evaluate the hazards of permit spaces before employees enter them;
- (c) Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the following:

- (1) Specify acceptable entry conditions;
- (2) Providing each authorized entrant or that employee's authorized representative with the opportunity to observe any monitoring or testing of permit spaces;
- (3) Isolating the permit space and physical hazard(s) within the space;
- (4) Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards;

NOTE: To paragraph §1204(c)(4). When an employer is unable to reduce the atmosphere below 10 percent LFL, the employer may only enter if the employer inertes the space so as to render the entire atmosphere in the space non-combustible, and the employees use PPE to address any other atmospheric hazards (such as oxygen deficiency), and the employer eliminates or isolates all physical hazards in the space.

- (5) Determining that, in the event the ventilation system stops working, the monitoring procedures will detect an increase in atmospheric hazard levels in sufficient time for the entrants to safely exit the permit space;



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- (6) Providing pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards;
 - (7) Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry, and ensuring that employees are not allowed to enter into, or remain in, a permit space with a hazardous atmosphere unless the employer can demonstrate that personal protective equipment (PPE) will providing effective protection for each employee in the permit space and provides the appropriate PPE to each employee; and
 - (8) Eliminating any condition (for example, high pressure) that could make it unsafe to remove an entrance cover.
- (d) Provide the following equipment (specified in paragraphs §1926.1204(d)(1) through (d)(9)) at no cost to each employee, maintain that equipment properly, and ensure that each employee uses that equipment properly:**
- (1) Testing and monitoring equipment needed to comply with paragraph §1926.1204(e);
 - (2) Ventilating equipment needed to obtain acceptable entry conditions;
 - (3) Communications equipment necessary for compliance with paragraphs §1926.1208(c) and §1926.1209(e), including any necessary electronic communication equipment for attendants assessing entrants' status in multiple spaces;
 - (4) Personal protective equipment insofar as feasible engineering and work-practice controls do not adequately protect employees;
NOTE: To paragraph §1926.1204(d)(4). The requirement of subpart E of this part and other PPE requirements continue to apply to the use of PPE in a permit space. For example, if employees use respirators, then the respirator requirements in §1926.103 (Respiratory protection) must be met.
 - (5) Lighting equipment that meets the minimum illumination requirements in §1926.56, that is approved for the ignitable or combustible properties of the specific gas, vapor, dust, or fiber that will be present, and that is sufficient to enable employees to see well enough to work safely and to exit the space quickly in an emergency;
 - (6) Barriers and shields as required by paragraph §1926.1204(c)(4);
 - (7) Equipment, such as ladders, needed for safe ingress and egress by authorized entrants;
 - (8) Rescue and emergency equipment needed to comply with paragraph §1926.1204(i), except the extent that the equipment is provided by rescue services; and
 - (9) Any other equipment necessary for safe entry into, safe exit from, and rescue from, permit spaces.



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(e) Evaluate permit space conditions in accordance with the following paragraphs (e)(1) through (6) of this section when entry operations are conducted:

- (1) Exam conditions in the permit space to determine if acceptable entry conditions exist before changes to the space's natural ventilation are made, and before entry is authorized to begin, except that, if any employer demonstrates that isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), the employer must
 - (i) Perform pre-entry testing to the extent feasible before entry is authorized; and,
 - (ii) If entry is authorized, continuously monitor entry conditions in the areas where authorized entrants are working, except that employers may use periodic monitoring in accordance with paragraph §1926.1204(e)(2) for monitoring an atmospheric hazard if they can demonstrate that equipment for continuously monitoring that hazard is not commercially available;
 - (iii) Provide an early-warning system that continuously monitors for non-isolated engulfment hazards. The system must alert authorized entrants and attendants in sufficient time for the authorized entrants to safely exit the space.
- (2) Continuously monitor atmospheric hazards unless the employer can demonstrate that the equipment for continuously monitoring a hazard is not commercially available or that periodic monitoring is of sufficient frequency to ensure that the atmospheric hazard is being controlled at safe levels. If continuous monitoring is not used, periodic monitoring is required with sufficient frequency to ensure that acceptable entry conditions are being maintained during the course of entry operations;
- (3) When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors;
- (4) Provide each authorized entrant or that employee's authorized representative an opportunity to observe the pre-entry and any subsequent testing or monitoring of permit spaces;
- (5) Reevaluate the permit space in the presence of any authorized entrant or that employee's authorized representative who requests that the employer conduct such reevaluation because there is some indication that the evaluation of that space may not have been adequate; and
- (6) Immediately provide each authorized entrant or that employee's authorized representative with the results of any testing conducted in accordance with §1926.1204 of this standard.

(f) H W Davis will provide at least one attendant outside the permit space in which entry is authorized for the duration of entry operations



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- (1) Attendants may be assigned to more than one permit space provided the duties described in §1926.1209 of this standard can be effectively performed for each permit space.
- (2) Attendants may be stationed at any location outside the permit space as long as the duties described in §1926.1209 of this standard can be effectively performed for each permit space to which the attendant is assigned.
- (g) If multiple spaces are to be assigned to a single attendant, include in the permit program the means and procedures to enable the attendant to respond to an emergency affecting one or more of those permit spaces without distraction from the attendant's responsibilities under §1926.1209 of this standard;**
- (h) Designate each person who is to have an active role (as, for example, authorized entrants, attendants, entry supervisors, or persons who test or monitor the atmosphere in a permit space) in entry operations, identify the duties of each such employee, and provide each such employee with the training required by §1926.107 of this standard;**
- (i) Develop and implement procedures for summoning rescue and emergency services (including procedures for summoning emergency assistance in the event of a failed non-entry rescue), for rescuing entrants from permit spaces, for providing necessary emergency services to rescued employees, and for preventing unauthorized personnel from attempting a rescue;**
- (j) Develop and implement a system for the preparation, issuance, use, and cancellation of entry permits as required by this standard, including the safe termination of entry operations under both planned and emergency conditions;**
- (k) Develop and implement procedures to coordinate entry operations, in consultation with the controlling contractor, when employees of more than one employer are working simultaneously in a permit space or elsewhere on the worksite where their activities could, either alone or in conjunction with the activities within a permit space, foreseeably result in a hazard within the confined space, so that employees of one employer do not endanger the employees of any other employer.**
- (l) Develop and implement procedures (such as closing off a permit space and canceling the permit) necessary for concluding the entry after entry operations have been completed;**
- (m) H W Davis Construction will review entry operations when the measures taken under the permit space program may not protect employees and revise the program to correct deficiencies found to exist before subsequent entries are authorized; and**

NOTE: To paragraph §1926.1204(m). Examples of circumstances requiring the review of the permit space program include, but are not limited to: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an



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injury or near-miss during entry, changes in the use or configuration of a permit space, and employee complaints about the effectiveness of the program.

- (n) H W Davis Construction will review the permit space program, using the cancelled permits retained under paragraph §1926.1205(f), within 1 year after each entry and revise the program as necessary to ensure that employees participating in entry operations are protected from permit space hazards. NOTE: to paragraph §1926.1204(n). H W Davis Construction may perform a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, no review is necessary.**

§1926.1205 PERMITTING PROCESS

- (a) Before entry is authorized, each entry employer (H W Davis Construction Subcontractor's) will document the completion of measures required by paragraph §1926.1204(c) of this standard by preparing an entry permit.**
- (b) Before entry begins, the entry supervisor identified on the permit must sign the entry permit to authorize entry.**
- (c) The completed permit will be made available at the time of entry to all authorized entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means, so that the entrants can confirm the pre-entry preparations have been completed.**
- (d) The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit in accordance with paragraph §1926.1206(b) of this standard.**
- (e) The entry supervisor must terminate entry and take the following action when any of the following apply:**
 - (1) Cancel the entry permit when the entry operations covered by the entry permit have been completed; or**
 - (2) Suspend or cancel the entry permit and fully reassess the space before allowing reentry when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is temporary in nature and does not change the configuration of the space or create any new hazards within it; and**
 - (3) Cancel the entry permit when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is not covered by subparagraph (e)(2) of this section.**
- (f) The entry employer (H W Davis Construction Subcontractor's) will retain each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program required by paragraph §1926.1204(n) of this standard. Any problems encountered during an entry operation must be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.**



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§1926.1206 ENTRY PERMIT

The entry permit that documents compliance with this section and authorizes entry to a permit space will identify:

- (a) The permit space to be entered;**
- (b) The purpose of the entry;**
- (c) The date and the authorized duration of the entry permit;**
- (d) The authorized entrants within the permit space, by name or by such other means (for example, through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space;**
NOTE: To paragraph §1926.1206(d). This requirement may be met by inserting a reference on the entry permit as to the means used, such as a roster or tracking system, to keep track of the authorized entrants within the permit space.
- (e) Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working;**
- (f) Each person, by name, currently serving as an attendant;**
- (g) The individual, by name, currently serving as entry supervisor, and the signature or initials of each entry supervisor who authorizes entry;**
- (h) The hazards of the permit space to be entered;**
- (i) The measures used to isolate the permit space and to eliminate or control permit space hazards before entry;**
NOTE: To paragraph §1926.1206(i). Those measures can include, but are not limited to, the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces.
- (j) The acceptable entry conditions;**
- (k) The result of tests and monitoring performed under paragraph §1926.1204(e) of this standard, accompanied by the names or initials of the testers and by an indication of when the tests were performed;**
- (l) The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services;**
- (m) The communication procedures used by authorized entrants and attendants to maintain contact during the entry;**
- (n) Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with this standard;**
- (o) Any other information necessary, given the circumstances of the particular confined space, to ensure employee safety; and**
- (p) Any additional permits, such as for hot work, that have been issued to authorize work in the permit space.**



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§1926.1207 TRAINING:

- (a) H W Davis Construction will provide training to each employee whose work is regulated by this standard, at no cost to the employee, and ensure that the employee possesses the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this standard. This training will result in an understanding of the hazards in the permit space and the methods used to isolate, control or in other ways protect employees from these hazards, and for those employees not authorized to perform entry rescues, in the dangers of attempting such rescues.**
- (b) Training required by this section will be provided to each affected employee:**
 - (1) In both a language and vocabulary that the employees can understand;
 - (2) Before the employee is first assigned duties under this standard;
 - (3) Before there is a change in assigned duties;
 - (4) Whenever there is a change in permit space entry operations that presents a hazard about which an employee has not previously been trained; and
 - (5) Whenever there is any evidence of a deviation from the permit space entry procedures required by paragraph §1926.1204(c) of this standard or there are inadequacies in the employee's knowledge or use of these procedures.
- (c) The training will establish employee proficiency in the duties required by this standard and will introduce new or revised procedures, as necessary, for compliance with this standard.**
- (d) H W Davis Construction will maintain training records to show that the training required by paragraphs §1926.1207(a) through (c) of this standard has been accomplished. The training records will contain each employee's name, the name of the trainers, and the dates of training. The documentation will be available for inspection by employees and their authorized representatives, for the period of time the employee is employed by H W Davis Construction.**

§1926.1208 DUTIES OF AUTHORIZED ENTRANTS:

The entry employer will ensure that all authorized entrants:

- (a) Are familiar with and understand the hazards that may be faced during entry, including information of the mode, signs or symptoms, and consequences of the exposure;**
- (b) Properly use equipment as required by paragraph §1926.1204(d) of this standard;**
- (c) Communicate with the attendant as necessary to enable the attendant to access entrant status and to enable the attendant to alert entrants of the**



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need to evacuate the space as required by paragraph §1926.1209(f) of this standard;

(d) Alert the attendant whenever:

- (1) There is any warning sign or symptom of exposure to dangerous situation;
or
- (2) The entrant detects a prohibited condition; and

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

- (1) An order to evacuate is given by the attendant or the entry supervisor;
- (2) There is any warning sign or symptom of exposure to a dangerous situation;
- (3) The entrant detects a prohibited condition; or
- (4) An evacuation alarm is activated.

§1926.1209 DUTIES OF ATTENDANTS:

The entry employer will ensure that each attendant:

- (a) Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;**
- (b) Is aware of possible behavioral effects of hazard exposure in authorized entrants;**
- (c) Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under paragraph §1926.1206(d) of this standard accurately identifies who is in the permit space;**
- (d) Remains outside the permit space during entry operation until relieved by another attendant;**
NOTE: To paragraph §1926.1209(d). Once an attendant has been relieved by another attendant, the relieve attendant may enter a permit space to attempt a rescue and the attendant has been trained and equipped for rescue operations as required by paragraph §1926.1211(a).
- (e) Communications with authorized entrants as necessary to assess entrant status and to alert entrants of the need to evacuate the space under paragraph §1926.1208(e).**
- (f) Assesses activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:**
 - (1) If there is a prohibited condition;
 - (2) If the behavioral effects of hazard exposure are apparent in an authorized entrant;
 - (3) If there is a situation outside the space that could endanger the authorized entrants; or



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- (4) If the attendant cannot effectively and safely perform all the duties required under §1926.1209 of this standard;
- (g) Summons rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;**
- (h) Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:**
 - (1) Warns the unauthorized persons that they must stay away from the permit space;
 - (2) Advises the unauthorized persons that they must exit immediately if they have entered the permit spaces; and
 - (3) Informs the authorized entrants and the entry supervisor if unauthorized person have entered the permit space;
- (i) Performs non-entry rescues as specified by the employer's rescue procedure; and**
- (j) Performs no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants.**
- (k) If assigned multiple spaces to a single attendant:**
 - a. The attendant must prove that he/she will be able to adequately respond to an emergency,
 - b. And the attendant must have a backup attendant ready to assume the attendant duties for the other space or order the evacuation of that space.

§1926.1210 DUTIES OF ENTRY SUPERVISORS:

The entry employer will ensure that each entry supervisor:

- (a) Is acquainted with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;**
- (b) Verifies, by examination that the appropriate entries have been made on the permit, that all tests identified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before authorizing the permit and allowing entry to begin;**
- (c) Terminates the entry and cancels or suspends the permit as required by paragraph §1926.1205(e) of this standard;**
- (d) Verifies that rescue services are available and that the means for summoning them are operable, and that the employer will be notified as soon as the services become unavailable;**
- (e) Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and**
- (f) Determines, whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with**



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terms of the entry permit and that acceptable entry conditions are maintained.

§1926.1211 RESCUE AND EMERGENCY SERVICES

(a) An employer who designates rescue and emergency services, pursuant to paragraph §1926.1204(i) of this standard, will:

- (1) Evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified;
NOTE: To paragraph §1926.1211(a)(1). What will be considered timely will vary according to the specific hazards involved in each entry. For example, §1926.103 – Respiratory Protection requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) wearing respiratory protection while in work areas defined as IDLH atmospheres.
- (2) Evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified;
- (3) Select a rescue team or service from those evaluated that:
 - (i) Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;
 - (ii) Is equipped for, and proficient in, performing the needed rescue services;
 - (iii) Agrees to notify the employer immediately in the event that the rescue service becomes unavailable;
- (4) Inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and
- (5) Provide the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue team or service can develop appropriate rescue plans and practice rescue operations.

(b) An employer whose employees have been designated to provide permit space rescue and/or emergency services will take the following measures and provide all equipment and training at no cost to those employees:

- (1) Provide each affected employee with the personal protective equipment (PPE) needed to conduct permit space rescues safely and train each affected employee so the employee is proficient in the use of that PPE;
- (2) Train each affected employee to perform assigned rescue duties. The employer must ensure that such employees successfully complete the training required and establish proficiency as authorized entrants, as provided by §1926.1207 and §1926.1208 of this standard;
- (3) Train each affected employee in basic first aid and cardiopulmonary resuscitation (CPR). The employer must ensure that at least one member



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of the rescue team or service holding a current certification in basic first aid and CPR is available; and

- (4) Ensure that affected employees practice making permit space rescues before attempting an actual rescue, and at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces, except practice rescue is not required where the affected employees properly performed a rescue operation during the last 12 months in the same permit space the authorized entrant will enter, or in a similar permit space. Representative permit spaces must, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

(c) Non-entry rescue is required unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. The employer will designate an entry rescue service whenever non-entry rescue is not selected. Whenever non-entry rescue is selected, the entry employer will ensure that retrieval systems or method are used whenever an authorized entrant enters a permit space, and will confirm, prior to entry, that emergency assistance would be available in the event that non-entry rescue fails. Retrieval systems will meet the following requirements:

- (1) Each authorized entrant will use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant. Wristlets or anklets may be used in lieu of the chest or full body harness is infeasible or creates a greater hazard and that the use of wristlet or anklets is the safest and most effective alternative.
- (2) The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit space more than 5 feet (1.52 meters) deep.
- (3) Equipment that is unsuitable for retrieval will not be used, including, but not limited to, retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other authorized entrants, or retrieval lines that will not work due to the internal configuration of the permit space.

(d) If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information will be made available to the medical facility treating the exposed.



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§1926.1212 EMPLOYEE PARTICIPATION:

- (a) H W Davis Construction will consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program required by §1926.1203 of this standard.
- (b) H W Davis Construction will make available to each affected employee and his/her authorized representatives all information required to be developed by this standard.

§1926.1213 PROVISION OF DOCUMENTS TO SECRETATRY:

For each document required to be retained in this standard, the retaining employer (H W Davis Construction) will make the document available on request to the Secretary of Labor or the Secretary's designee.



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BARRIERS, SIGNS, FLAGMEN:

- a. Place signs (lights) well in advance of the work area to permit upcoming pedestrians and motorists time to react.
- b. Erect protective barriers or guards and warning signs prior to demolition work where accessible by vehicular or pedestrian traffic.
- c. Position the work vehicle to guard the work area while work is in progress.
- d. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
- e. Stand clear of floor openings if guardrails or covers are removed or displaced.
- f. Flagmen shall be required at all locations on a construction site where barricades and warning signs cannot control moving traffic. They shall be placed so as to give adequate warning, approximately 100 feet ahead of impact point. They shall be provided with red flags and hand signs or red lights.
- g. A warning sign shall be posted ahead of flagmen reading "Flagmen Ahead".
- h. The flagmen shall be provided with a red or orange warning garment for flagging. At night, reflective garments shall be used.
- i. Flagmen shall be instructed in the proper fundamentals of flagging moving traffic before they perform this work.



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WEATHER CONTINGENCY PLAN: (Emergency Procedures: Acts of Nature)

1. **PURPOSE:** The purpose of this section is to define the procedures under which H.W. Davis Construction employees and subcontractors will integrate preventative and defensive actions in the case of a weather emergency.
2. **RESPONSIBILITY:** H.W. Davis Construction will strive to be knowledgeable of possible storms and weather conditions. Some jobsites do not allow radios or other means of outside communication, therefore, H.W. Davis Construction cannot be held responsible for lack of knowledge except as what can be determined by observation of conditions.

H.W. Davis Construction Field Superintendent will be responsible for alerting all workers of impending danger. All workers are instructed to use whatever emergency shelter available at their jobsite.

3. THREATS:

- A. **HURRICANE** - Four stages of hurricane warning. Procedures to follow as the storm approaches.
- B. **TORNADO** – Emergency procedures to follow with a minimum of or with no advanced warning.
- C. **THUNDERSTORMS** – Precautions to take to minimize injury and damage to property.
- D. **LIGHTNING** – Life saving precautions and procedures in the event of a strike

A. HURRICANE

Condition IV: Hurricane within 72 hours of jobsite and possible movement toward jobsite. Field Superintendent shall advise all workers and subcontractor personnel to impose general readiness. All personnel will start clean-up and tie-down procedures.

- a. Arrange to have jobsite dumpster emptied and port-o-lets pumped out, tied down or removed from site before the hurricane reaches Condition II.

Condition III: Hurricane within 48 hours of jobsite. Field Superintendent will direct all personnel to intensify clean-up and tie-down procedures.

Condition II: Hurricane within 24 hours of jobsite. Complete clean-up and tie-down operations. Jobsite trailers will be secured, windows will be taped, tie-downs checked for security, all equipment removed or stored in trailer.

- a. Begin disassembling scaffolding.
- b. Store in a safe building.



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Condition I: Hurricane within 12 hours of jobsite. Shut down all work. Abandon jobsite.

Post-Hurricane: Field Superintendent will assess the situation and establish a positive schedule to resume full operations as soon as possible.

EMERGENCY PROCEDURES: Clean-up and tie-down procedures:

1. Police the area, place all materials in a protected area.
2. Cover and tie down or store all outside equipment and material.
3. Check all surrounding area and roof of building for loose material, equipment, debris, and other objects. Remove all items and secure.

When a hurricane approaches: H.W. Davis Construction and the Owner, or the Owner's Facility Maintenance / Engineering Personnel will decide when to prepare the project for a hurricane or tropical storm.

All employees on site shall:

- Ensure that all loose scrap material is gathered up and disposed of in the dumpsters. (The dumpsters should already be emptied before the hurricane reached Condition II and should contain only small amounts of debris.) The dumpster should then be covered securely with a tarp thus preventing the debris from becoming windblown hazards. Port-O-Lets should be pumped out and tied down or removed from site before the storm has reached Condition II.
- Ensure that all loose forming materials are neatly stacked and band strip all stacks.
- Remove all materials, tools, tool sheds, gang boxes and small equipment that can be damaged by rising water from all low-lying areas.
- Remove all un-installed glass windows and doors and store in a permanent structure.
- Ensure that the beams of all excavations are continuous and in good repair.
- Secure essential barricades with anchors, tie-downs or sand bags and lay flat on the ground any non-essential barricades.
- Lay crane booms on the ground if possible.
- Turn off the power and water to office trailers. Disconnect all office equipment from electrical outlets.
- Disassemble all scaffolding, stack and tie-down.
- Using an "X" pattern, duct tape the windows of the offices.
- Do not touch loose or dangling wires, but report them to supervisor.
- Move cautiously about the project being on the alert for unsafe conditions. Report any to supervisor immediately.



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After the storm:

H.W. Davis Construction and the Owner, or the Owner's Facility Maintenance / Engineering personnel will:

- Evaluate the damage and initiate corrective action to ensure a safe site before employees return to work
- Survey the project for damage and unsafe conditions.

All personnel shall:

- Stay tuned to local radio to find out when it is advisable to venture back out onto the public roadways.
- If phones are working, call the jobsite or H.W. Davis Construction office, 407-849-1212, for information on returning to work.

B. TORNADO

NATURE'S MOST VIOLENT STORM!! Tornadoes occasionally accompany tropical storms and hurricanes that move over land and are most common to the right and ahead of the path of the storm as it comes onshore. They are also spawned from thunderstorms or can develop along a

"Dry line" which separates very warm, moist air to the east from hot, dry air to the west. Tornado-producing thunderstorms may form as the dry line moves east during the afternoon hours.

1. **Tornado Watch:** tornadoes are possible in your area. Remain alert for approaching storm. Tune radio to weather station.
2. **Tornado Warning:** A tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area and the sky becomes threatening, move to your pre-designated place of safety.

RECOGNIZING THE DANGERS:

1. Environmental clues: Tornadoes develop so rapidly that advance warning is not possible. Remain alert for signs of an approaching tornado. Remember that flying debris from tornadoes causes most deaths and injuries. Look for the following conditions:
 - a. Dark, often greenish sky
 - b. Wall cloud
 - c. Large hail
 - d. Loud roar, similar to a freight train
 - e. A sudden calming of heavy winds



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2. Waterspouts:

- a. Waterspouts are weak tornadoes that form over warm water.
- b. Waterspouts are most common along the Gulf Coast and southeastern states.
- c. Waterspouts occasionally move inland becoming tornadoes.

EMERGENCY PROCEDURES:

1. EXISTING BUILDINGS: Worksites such as hospitals and office buildings will have existing emergency procedures and designated safety areas. If uncertain of their location or there is not ample time to get there, go to the center most hallway, doorway or closet available on the lowest floor of the building and assume the tornado protection position. *Assume the crouch position with knees and head bent as low to the floor as possible and cover your head with your hands. Stay away from windows and the exterior walls of the building.*

2. REMOTE AREAS: (with no existing building in place)

Who is at most risk? People in automobiles -- People in mobile homes

REMEMBER -- THE JOBSITE TRAILER IS **NOT** A SAFE REFUGE!!!!

GET OUT OF YOUR AUTOMOBILE.

Lie **flat in the fetal position** in a ditch or depression in the field. Cover your head with your arms. Get as far away from loose construction material and jobsite trailer as time will allow.

C. THUNDERSTORMS / FLOODING

Thunderstorms are the most frequent of weather conditions to be encountered in the Florida area. Advanced warning is the best offense. Heed these warnings:

- Watch the sky. Look for darkening skies, flashes of light, or increasing wind. Listen for the sound of thunder.
- If you can hear thunder, you are close enough to the storm to be struck by lightning. Go to safe shelter immediately.
- Find shelter in a building or car. Keep car windows closed and avoid convertibles.
- Telephone lines and metal pipes can conduct electricity. Unplug all electrical equipment and appliances. Avoid using the telephone or any electrical appliance.
- Draw blinds or shades (if available) over windows to reduce damage of shattering glass.



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Dangers that often accompany thunderstorms:

- **Flash Floods** - Number ONE weather killer. Remember that for each foot the water rises, 500 lbs. of lateral force is applied to the car. For each foot the water rises up the side of the car, the car displaces 1500 lbs of water. In effect, the car weighs 1500 lbs. less for each foot the water rises. Remember that 2 feet of water will carry away most vehicles.
- **Lightning** - Kills 75 to 100 people each year. Remember Florida records the most lightning strikes of all the states. See Item d - Lightning
- **Straight-line wind** - Can reach up to 140 MPH.
- **Large hail** - Can reach the size of a grapefruit causing severe damage. Stay indoors. Stay away from power lines. Stay in your vehicle. If not near a building or vehicle, take shelter under the shortest tree available. Crouch as low to the ground as possible and cover your head with your arms. Do not lie flat on the ground as this will make you a larger target.

EMERGENCY PROCEDURES:

- a. Place all loose material in a protected area.
- b. Tie down all outside equipment and materials that cannot be moved to a protected area.
- c. Check all surrounding areas and roof of building for loose material, equipment, debris and any other objects.

D. LIGHTNING

Lightning often accompanies thunderstorms and can result in severe injury or death. Watch for these warnings;

- Watch the sky for darkening, flashes of light, or increasing wind.
- Listen for the sound of thunder.
- If you can hear thunder you are close enough to the storm to be struck by lightning. Go to safe shelter immediately.

PRECAUTIONS: When an approaching thunderstorm is anticipated:

- A. The following locations should be avoided:
 - Open fields, athletic fields and golf courses
 - Parking lots and tennis courts
 - Swimming pools, lakes and seashores
 - Wire fences, clothes lines, overhead wires and railroad tracks
 - Under isolated trees



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B. The following precautions should be taken:

- Stay indoors
- Stay away from power poles and tall trees
- Get out of water. Be aware of wet ground
- Unplug all electrical appliances and equipment

Avoid contact with the telephone, electrical appliances and plumbing fixtures



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SAFETY & EMERGENCY ACTION PLAN PROGRAM

I. SAFETY POLICY STATEMENT

H W Davis Construction, Inc. recognizes that our people drive the business. As our most critical resource, employees will be safeguarded through training, provision of appropriate work surroundings and procedures that foster protection of health and safety. All work conducted by H W Davis Construction, Inc.'s employees will take into account the intent of this policy. No duty, no matter what its perceived result, will be deemed more important than employee health and safety.

H W Davis Construction, Inc. is firmly committed to the safety of our employees. We are committed to providing a safe working environment for all employees and will do everything possible to prevent workplace accidents.

We value our employees not only as employees but also as human beings critical to the success of their families, the local community and H W Davis Construction, Inc.

Employees are encouraged to report any unsafe work practices or safety hazards encountered on the job. All accidents/incidents (no matter how slight) are to be immediately reported to the supervisor on duty.

A key factor in implementing this policy will be the strict compliance to all applicable federal, state, local and facility policies and procedures. Failure to comply with these policies may result in disciplinary actions.

Respecting this, H W Davis Construction, Inc. will make every reasonable effort to provide a safe and healthful workplace that is free from any recognized or known potential hazards. Additionally, H W Davis Construction, Inc. subscribes to these principles:

1. All accidents are preventable through implementation of effective safety and health control policies and programs.
2. Safety and health controls are a major part of our work every day.
3. Accident prevention is good business. It minimizes human suffering, promotes better working conditions for everyone, holds H W Davis Construction, Inc. in higher regard with clients and increases productivity. This is why H W Davis Construction, Inc. will comply with all safety and health regulations that apply to the course and scope of operations.
4. Management is responsible for providing the safest possible workplace for employees. Consequently, management of H W Davis Construction, Inc. is committed to allocating and providing all of the resources needed to promote and effectively implement this safety policy.



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5. Employees are responsible for following safe work practices and facility rules and for preventing accidents and injuries. Management will establish lines of communication to solicit and receive comments, information, suggestions and assistance from employees where safety and health are concerned.
6. Management and supervisors of H W Davis Construction, Inc. will set a positive example with good attitudes and strong commitment to safety and health in the workplace. Toward this end, management must monitor facility health performance, safety, working environments and conditions to ensure that program objectives are achieved.
7. Our safety program applies to all employees and persons affected or associated in any way by the scope of this facility. Everyone's goal must be to constantly improve safety awareness and to prevent accidents and injuries.

Everyone at H W Davis Construction, Inc. must be involved and committed to safety. This must be a team effort. Together, we can prevent accidents and injuries, keeping each other safe and healthy in the workplace.

The following list of names of key personnel who can be contacted in times of emergency:

H. Ward Davis, President 407-859-7756 Jeffrey J. Rife, Vice-President 407-323-8179
Colleen Geving, Safety Manager 407-849-1212

OBJECTIVE

Set a policy to protect Contractor's, Subcontractors / Sub-subcontractors and Owner's personnel and property, the general public, Owner's guests and all others who may be present at the jobsite in all phases of construction and related activities. (The term "Subcontractor" includes Subcontractors and Sub-subcontractors by reference throughout.)

- Avoid injuries to employees and the public;
- Maximize productivity;
- Reduce construction interruption due to accidents;
- Maintain a safe and healthful workplace; and
- Assure compliance with regulatory requirements

METHODS OF ATTAINING SAFETY OBJECTIVES:

- a. Eliminate unsafe conditions and hazards.
- b. Employees will be given a copy of the Health and Safety Plan, Project Policies and Construction Safety Rules upon hire. It is the responsibility of the employee to comply with all rules and regulations. A complete HWD Jobsite Safety Manual can be viewed at the Office or Jobsite Trailer upon request.
- c. HW Davis Construction, Inc. will conduct Weekly Safety Meetings and maintain the record sheet. All H W Davis Construction employees (as well as the employees of all Subcontractors, Sub-Subcontractors and hired laborers) are



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- required to attend the HW Davis Construction site safety meetings. If a Subcontractor holds a separate meeting, HWD Field Superintendent is to be notified of the date and time and a copy of the report must be given to HWD Field Superintendent within 24 hours after the meeting. Holding a separate meeting does not preclude the mandatory attendance of the HWD meeting and will be in addition to.
- d. All employees are to use proper personal protective equipment. HWD will supply all other required safeguards and safety equipment (such as, but not limited to, fall protection equipment, fire safety).
 - e. The term "employee(s)" includes and applies to all workers present at the jobsite at the express orders of Subcontractor and Sub-subcontractors on site and includes hired and leased workers.
 - f. All HWD, (including Subcontractor and Sub-subcontractor) employees will be required to follow the safety plan as established by H W Davis and mandated by the attached Owner's policy. Horseplay and careless acts will not be tolerated. Proper attire will be required at all times.
 - g. Safety Assessment/Pre-Job Briefing Form: At the beginning of the project, or when the need arises, employees will be advised of any potential hazards associated with their work. A Safety Assessment form will be explained at the Weekly Safety Meeting prior to that work. These hazards include, but not limited to:
 - i. Hot work (welding, burning, cutting);
 - ii. Work in a confined space;
 - iii. Shutdown of operational systems, such as fire alarm, fire sprinklers, HVAC systems serving occupied areas; (See 9. Safeguarding Safety Systems)
 - iv. Introducing hazardous chemicals -solvents, corrosives, compressed gases, gasoline - onto the site;
 - v. Work with hazardous chemicals adjacent to any occupied area that is being serviced by the same air conditioning unit or where fumes may seep into those occupied areas;
 - vi. Cranes or any large equipment;
 - vii. Trenching;

SAFETY RULES:

A. GENERAL PROJECT RULES

1. Possession and/or use of alcohol or narcotics during the work day or working under the influence of alcohol or narcotics are strictly prohibited. Violation of this rule could result in termination.
2. At a minimum, all OSHA regulations must be followed



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3. Shoes, long pants (no sweat pants) and shirts with sleeves must be worn at all times. Shoes shall be approved as work shoes or boots. No soft soled or tennis shoes. No tank tops, half tops or sleeveless shirts are allowed. Shirts tails should be tucked in and long sleeves buttoned.
4. Proper grounding of all tools is imperative.
5. Report all accidents/injuries/incidents to a HW Davis Superintendent and or Safety immediately, whether or not medical treatment is given.
6. Any potentially unsafe act or condition must be reported to your supervisor immediately and should be discussed before starting or continuing work.
7. When preparing to lift an object, assess the load. If load is over 60 lbs. get help or use a lifting device. Use proper lifting techniques. Lift with back straight and legs bent.
8. When assisting a person whose injury results in bleeding, employees should protect themselves against blood borne pathogens by wearing latex or vinyl gloves and observing universal precautions.
9. Good housekeeping is to be maintained at all times, on the jobsites and in company vehicles. If a Sub-Contractor fails to maintain good housekeeping practices, HW Davis will complete the necessary clean-up and back charge the Sub-Contractor accordingly.
10. Smoking is prohibited on company property unless in specifically designated smoking area
11. Horseplay is not permitted at any time.
12. All employees have specific job responsibilities, which have accompanying work areas. No employee shall venture into, loiter, observe or work in unassigned areas such as chemical storage areas, loading areas, pesticide spray areas, no trespassing areas.
13. Unauthorized non-employees are not permitted into any company work area without authorization.
14. Safety Meetings will be held in conjunction with the weekly Subcontractor meeting. It is the responsibility of each Subcontractor to hold weekly safety meetings; if they fail to do so, it is mandatory that all employees attend HW Davis's safety meeting.
15. Park only in designated areas for construction personnel
16. Crude behavior will not be tolerated. No cat calls or obscene gestures. Employees are to be courteous to project/facility employees and guests at all times.

B. PERSONAL PROTECTION EQUIPMENT SAFETY RULES

17. ANSI approved eye protection (safety glasses, goggles, face shield) shall be worn when required by jobsite specifications or when a hazard is present.



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18. Hearing protection devices must be used when operating any power equipment. Walkman, iPods, or MP3 players are not allowed while operating equipment.
19. All employees engaged in outdoor operations near traffic shall wear Class II vests. Class III vests shall be worn in traffic areas of 50 mph or higher.
20. All field employees shall wear appropriate work boots made of strong material or leather that have firm ankle, sole and arch support.
21. Employees responsible for mixing, handling, or applying chemicals must follow the instructions on the labels/ MSDS and wear the appropriate Personal Protection Equipment (PPE).
22. A hardhat or recommended head gear shall be worn as required by jobsite specifications, task specifications or when a hazard is present that requires its use. Hard hats are always required while overhead work is being performed and around equipment including cranes.
23. All personnel in the field must wear proper PPE even if just observing.
24. Personal Protection Equipment shall be cleaned and inspected daily or at each use. Worn or defective PPE shall be replaced or repaired
25. Gloves are mandatory when engaged in blade sharpening, chemical application and when exposed to blood borne pathogens

C. VEHICLE SAFETY RULES

26. An employee shall have a valid Driver's License and driving record that meets company policy in order to drive a company vehicle
27. All personnel driving in a company vehicle shall be seated in the interior portion of the vehicle and shall wear seatbelts while the vehicle is in motion
28. Drivers shall obey all local and state traffic laws
29. Always use a spotter when backing up if rearview is obstructed
30. Never leave keys in a vehicle unattended
31. Smoking is prohibited while fueling company vehicles
32. Texting is strictly prohibited while driving. Cell phones should not be used while driving in inclement weather or when there is poor visibility conditions

D. EQUIPMENT SAFETY RULES

33. No Employee shall tamper with or disengage safety devices on any equipment
34. All employees shall follow the company rules on Lock-out Tag-out procedures before performing maintenance, adjustment or repairs to any equipment or electrical repairs
35. Equipment is to be operated by authorized employees who have been trained in the proper use, operation and proper safety protection for that equipment



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- 36. Equipment must be started and operated from the driver's seat and not from the side of the equipment.
- 37. Seatbelts are mandatory and shall be used on any equipment with ROPS (roll over protection)
- 38. Employees must turn off the engine when it is necessary to touch any piece of equipment with moving parts
- 39. Allow all power equipment to cool before storing or servicing
- 40. Whenever equipment is left unattended, be sure it's powered off and keys are removed
- 41. No riders are permitted on any piece of equipment
- 42. Use only ANSI approved ladders that have all required safety devices attached. Do not stand or sit on the top 2 steps and always follow manufacturer's instructions and warnings.
- 43. Store all sharp tools in sheath or scabbard when not in use.

E. JOB SITE SAFETY RULES

- 44. Potentially dangerous conditions are to be properly barricaded and warning tape and/or signs shall be used.
- 45. Employees should keep a minimum of 6 ft. from any piece of equipment while in operation and from vehicles or equipment being loaded or unloaded.
- 46. All employees should follow OSHA Safety Standards for working in or near excavations
- 47. No smoking except in designated areas
- 48. No employee is to store or transfer any material from or into an unmarked, unlabeled container or package. Employees shall handle only marked or labeled material and have appropriate MSDS for such materials.
- 49. In case of emergency, employees should know their job site emergency procedures.
- 50. Always locate underground utilities before excavating or trenching to identify potential hazards.
- 51. All workers must use personal protective equipment at all times
- 52. Keep work areas clean. Store material in an orderly manner. Keep area free of debris and trip hazards. Clean up daily.
- 53. All power tools must be properly grounded or double insulated. Damaged cords must be replaced.
- 54. All power and hand tools must be used in a safe manner. Know the correct use of tools before using. Never remove safety guards or guides from tools or machinery.
- 55. Eye protection must be worn in addition to face shields when exposed to flying particles.



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56. Ladders must be used safely. Do not use defective ladders. Inspect ladders for cracks and loose rungs. Don't over extend yourself on ladders or scaffolds.
57. Scaffolds must be erected on solid footing with guardrails installed when working over 4 ft. in height
58. Do not remove guardrails from any scaffolding
59. Only authorized personnel should operate equipment and motorized vehicles
60. Keep a safe distance from live electrical wires
61. Report all injuries to HW Davis Superintendent and/or safety immediately
62. Report any unsafe conditions, equipment, tools or environmental non-compliances to HW Davis Superintendent and/or safety. Be alert to these conditions at all times.
63. No one shall knowingly be permitted to work while his ability or alertness is so impaired by fatigue, illness or other causes that it might unnecessarily expose him or others to injury or the environment harm.
64. Fighting, horseplay, wrestling or like activities are forbidden on the job or owners property.
65. Never throw materials or equipment from levels where personnel are working below. When work is being performed where it is necessary, (such as demolition) a No Entry warning must be in place including safety barricades, danger signs and a designated safety watchman to ensure no one enters the area.
66. No one to operate equipment or tools which have been tagged "Do Not Operate" or "Out Of Order" until required repairs have been made and said tag has been removed by an authorized person.

F. OWNERS REQUESTS

67. No employees are allowed on jobsites unless working
68. No radios
69. Dining facilities and public restrooms are to be used only with expressed permission and at the discretion of the owner.
70. No smoking, chewing or dipping in the confines of a facility. Smoking in designated areas only.
71. Do not borrow equipment from owner without permission of a HW Davis Superintendent
72. Due to electromagnetic interference (EMI), cell phones and radios must be turned off when in Critical Care Areas in hospitals. Restrict use to waiting rooms and non-patient care areas.

G. SITE ADMINISTRATION

1. The H.W. Davis Construction office is for official business only. It is not a meeting place or break room.



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2. Each major subcontractor is expected to provide their own communications. No personal calls will be allowed on HWD jobsite phone
3. Meetings will be held weekly to discuss problems and solutions, and a representative from each major subcontractor is required to attend. HWD will notify all subs of the day and time.
4. Unless notified otherwise, working hours will be 7:00 A.M. until 3:30 P.M.
5. Employees are to place lunch or break trash in a receptacle. If litter becomes a problem, H.W. Davis will police the area and back charge the offending subcontractors accordingly.

H. EMERGENCY PLAN COORDINATOR

The safety manager is responsible for making sure this emergency action plan is kept up to date, practices, and reviewed periodically.

The Emergency Plan Coordinator can be reached at the H W Davis Construction, Inc., office:

H W Davis Construction, Inc.
1212 29th Street
Orlando, FL 32805

EMERGENCY ACTION PLAN REPORTING PROCEDURES – UNIVERSAL STUDIOS

Reporting procedures are posted in the safety office at H W Davis Construction, Inc.'s office.

All emergencies occurring at H W Davis Construction, Inc.'s office will be reported to the safety manager, Colleen Geving, who will alert the appropriate authorities.

Procedures for reporting emergencies occurring at a jobsite on Universal Studios property:

It is the duty of all H W Davis Construction, Inc. field employees to report all emergencies to their jobsite supervisor.

It is the duty of the jobsite supervisor to:

- Notify and evacuate all jobsite employees of an emergency and relocate to a predetermined safe area, away from the emergency/hazard.
- Notify H W Davis Construction, Inc., safety personnel



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- **Notify the owner's representatives at Universal Command Center 407-363-8333**
- **Notify the appropriate emergency and/or medical authorities:**
 - **Emergency – 911**
 - **Non-emergency Fire Department - 321-235-5200**
 - **Non-emergency Police Department – 321-235-5300**

Type of Emergency	How to Report (Phone Numbers)
Fire	911 then 407-363-8333 Universal Command Center
Explosion	911 then 407-363-8333 Universal Command Center
Weather	407-363-8333 Universal Command Center, 911
Bomb threat	407-363-8333 Universal Command Center, 911
Chemical Spill/Leak	407-363-8333 Universal Command Center
Violence	911, then 407-363-8333 Universal Command Center
Medical	911, then 407-363-8333 Universal Command Center
Other	407-363-8333 Universal Command Center

A. REPORTING ACCIDENTS:

HW Davis believes it is the company's obligation to prevent accidents from happening in the workplace. HW Davis also believes it is every employee's responsibility to report unsafe or apparent unsafe conditions to a supervisor immediately and to stop the activity until the condition is corrected.

All HWD, (including Subcontractor and Sub-subcontractor) employees will immediately report to H W Davis any accident (whether deemed "recordable" or not) or any damage to Owner's facility or property. A written report must be submitted to HW Davis upon completion of investigation. (but no more than 24 hours after the incident.)

When an accident does occur, there specific tasks to handle workplace accidents in a standardized manner and demonstrate the Company's compliance with reporting requirements

HW Davis does not discriminate against employees for:

- Reporting a work-related injury or illness



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- Filing a safety and health complaint
- Asking for access to occupational injury and illness records or
- Exercising any right afforded by the Occupational Safety and Health Act

“Serious Injury” or **“Emergency Situation”** must be reported within 1 hour of the incident to HW Davis in order to comply with OSHA Regulations. Failure to report these accidents/incidents can result in considerable fines to the company. HW Davis also has the responsibility to report serious injuries or emergency situations to the client or general contractor.

“Serious Injury” is any injury or illness occurring in a place of employment or in connection with any employment which:

- Requires inpatient hospitalization for a period in excess of 24 hours for other medical observation
- An employee suffers the loss of any member of the body
- A fatality is involved
- Or any single incident where more than one employee is transported to the hospital

An **“Emergency situation”** applies to, but is not limited to:

- Fire
- Earthquake
- Flood
- Explosion
- Security Threat (bombs, weapons, violent act against others, etc.)
- Inclement or Dangerous Weather Situations

B. ACCIDENT INVESTIGATION

PURPOSE:

To obtain information through which recommendations for corrective action can be developed for the prevention of similar or other accidents, either in the area affected or elsewhere in the company.

- Determining accident causes- seeking out the elements and sources from which the accident developed.
- Determining corrective measures-Analyzing the cause factors and making recommendations for their elimination.



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- Developing educational measures-Producing information, which will guide personnel into developing a “Safety Consciousness” and knowledge of safe conditions and safe methods.

Why Incidents/Accidents/Injuries Should Be Investigated

All accidents are potentially serious. All are important regardless of the degree of seriousness of any resulting injury, since the “injury result” of any set accident-producing circumstances is impossible to predict.

Every incident should be properly investigated, bearing in mind the following order of importance.

- Deaths or other catastrophes.
- Permanent disabilities.
- Temporary disabilities.
- Property damage.
- Incidents involving “close calls”.

When to Investigate

Investigation should begin as soon as possible after the accident using the Accident Investigation Report. Delays- even those of a few hours- can permit information or items of importance to be removed, destroyed or forgotten.

Who Should Investigate

The person, or persons, making the investigation should have some knowledge of accident sources and causes, the work process and equipment involved. Depending on the circumstances, one or more of the following should make the investigation:

1. The supervisor of the jobsite or location
2. The safety officer
3. Human resource officer
4. Member of the safety committee

*All serious accidents will be investigated by the Safety Manager.



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Six Questions to answer as the basis of Accident / Incident Investigation

1. **HOW** did the accident happen?
2. **WHERE** did the accident happen?
3. **WHAT** were the materials, equipment or conditions involved?
4. **WHO** was involved?
5. **WHEN** did it occur?
6. **WHY** did it happen?

Specific Information That Should Be Obtained

Name- person(s) involved

Address/Telephone Number- for Contact purposes

Date- record day and hour of occurrence

Place- give specific location

Type- what type of accident- fall, struck by, caught in

Equipment- what equipment, material involved

Witnesses- name, address and phone

In addition to these fundamental and basic points, the following items should receive appropriate attention, depending upon the circumstances in each case:

Description By Witnesses- Get various accounts of the accident- workers, supervisors, and other witnesses.

Unsafe Conditions- State what unsafe conditions contributed to the accident. Give reason for existence, if possible.

Unsafe Acts- List any unsafe acts involved. Why did they occur- lack of ability, poor attitude, inadequate training.

Corrective Action- What has been done to prevent reoccurrence of this accident?



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Other Information- You can't get too much information about an accident. What may have appeared to have been a simple accident may have contributing circumstances, which are quite involved. Underlying causes must be sought.

Principals Which Should Be Observed

1. USE COMMON SENSE – stick to the facts, weigh their value, reach justified conclusions.
2. INVESTIGATE EACH CLUE- an apparently reasonable conclusion will often be changed by exploring factors which may not appear to be important.
3. CHECK FOR UNSAFE CONDITIONS AND ACTS- both are present in the majority of accidents and incidents.
4. MAKE RECOMMENDATIONS- no investigation is complete unless corrective action is suggested.

C. REPORTING SERIOUS INJURY/EMERGENCY SITUATIONS

1. Call for assistance including 911 (EMT) and local police
2. Immediately notify HW Davis Safety and Human Resources
3. Notify Client or Owner
4. Complete "Report of Accident" and return to HW Davis Office immediately
5. Safety or Office will create a file and forward to Workers Compensation Insurance
6. Do Not give any statements to the press. Direct all calls to HW Davis
7. Follow up investigation will be done by Safety Officer

D. REPORTING INJURY/FIRST AID

1. Employee reports injury to Supervisor
2. Supervisor assess injury
3. Supervisor/Safety care for the injury as trained
4. Report of Accident completed stating "First Aid Only" in bold letters
5. Completed report turned into Safety within 24 hours
6. Supervisor/Safety Officer will follow up on employee's condition
7. Employee should be counseled on how to prevent further occurrences or injury
8. Occurrence to be discussed at next monthly safety meeting
9. Disciplinary Action shall be taken if warranted



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E. REPORTING INJURY NEEDING MEDICAL ASSISTANCE

1. Employee reports injury to Supervisor
2. Supervisor assess injury and stabilizes injury as trained
3. Supervisor contacts Safety Officer/Human Resources
4. Employee is taken to the nearest medical facility or in case of severe injury taken to nearest hospital or call 911 for EMT
5. Employee should be accompanied to the medical facility and a drug screen will be performed per company policy (provide chain of custody form)
6. Complete Accident Report within 24 hours
7. Safety or Office will complete a file and forward to Workers Comp Insurance
8. Supervisor or Safety will follow up on employees condition
9. Employee should be counseled on how to prevent further occurrences or injury
10. Occurrence to be discussed at next monthly safety meeting
11. Disciplinary Action shall be taken if warranted

F. REPORTING VEHICLE/EQUIPMENT ACCIDENTS

Designated drivers of company vehicles, as well as operators of equipment, will be responsible for the safe operation of the vehicle and in case of accident, they must:

1. Stop immediately
2. Assess the situation and clear the roadway as quickly as possible.
3. If someone is injured, call 911 immediately. Do not move an injured person unless there is danger of vehicles in traffic, or danger of fire and/or explosion.
4. Do not move vehicles
5. Call police and wait until they arrive before moving vehicles. Get the Officers name and badge number and obtain police report.
6. Obtain information on all other persons including names, addresses, driver's license numbers, insurance information, including witnesses. Obtain vehicle license numbers, year, make, and model of vehicle(s).
7. Take pictures of vehicles from all sides, as well as the area.
8. Contact Safety Officer/Office to let them know what happened and whether or not there were any injuries
9. Do not admit liability and do not discuss the accident with anyone other than the police.
10. Complete the "Drivers Accident Report" (located in your vehicles accident kit) at the scene and submit to the completed form to Safety or Office immediately.
11. Employee Driver(s) should be drug screened immediately
12. Safety or Office will complete a file and forward to Auto Insurance Agency
13. If "at fault" employee should be counseled on how to prevent further occurrences or injury



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14. Occurrence to be discussed at next monthly safety meeting
15. Disciplinary Action shall be taken if warranted

G. REPORTING A UTILITY HIT/PROPERTY DAMAGE

1. Superintendent should clear the area immediately of all personnel and assess the damage
2. Contact the utility company and owner/client immediately
3. Get information from the people you contacted and those who report to the scene
4. Take photos
5. Employee involved should be drug screened
6. Complete Accident/Incident report and submit to Safety/Office within 24 hours
7. Employee should be counseled on how to prevent further occurrences or injury
8. Occurrence to be discussed at next monthly safety meeting
9. Disciplinary Action shall be taken if warranted

Note: Property Damage should be reported similar to a utility hit but without calling the utility company.

H. REPORTING STOLEN / VANDALIZED PROPERTY

1. Call the police immediately
2. Complete Incident Report
3. Report loss to Safety/Office
4. Submit completed paperwork to the Safety Officer/Office within 24 hours
5. Safety or Office will complete a file and forward to Insurance Company
6. Occurrence to be discussed at next monthly safety meeting
7. Disciplinary Action shall be taken if warranted

I. REPORTING TO CLIENTS / OWNERS

1. Serious accidents / incidents, which happen on the job-site, should be reported to our client or owner immediately. This would include damage or injury to our employees or property, as well as the general public, and the clients or owner's personnel or property.
2. The client or owner should be updated and a final report should be submitted to them if requested.



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J. NEAR MISS REPORTING

HW Davis Inc. strives to prevent injuries through the use of ongoing hazard identification and abatement procedures. Near miss/unsafe condition reporting affords employees an opportunity/method to communicate situations, which could lead to injuries or equipment damage on a positive, pro-active basis. For this reason, all near miss incidents shall be reported and thorough reviews of these reports shall be made in accordance with this policy.

A near miss is an unplanned occurrence that interferes with or interrupts the orderly progress of work or has the potential to cause personal or monetary loss through property damage or production delays. Employees should be encouraged to report near misses, unsafe conditions, or safety suggestions for purposes of fostering a safe work environment.

Management and Safety shall work with the employee to analyze the near miss and to develop procedures and or equipment modifications to prevent recurrence. Near miss incidents and suggestions for corrective actions are excellent topics for safety meetings. Use safety meetings as a forum to review near misses to prevent recurrence.

K. REPORTING PROCESS

1. Employees shall report any incident/unsafe condition, which follows the definition listed above, to their supervisor using the Near Miss/Incident Report. Employees may choose to complete the report anonymously.
2. The reports are to be given to safety or put into "In Box" in the Safety Office.
3. The safety Officer will review the form and note the course of action to be taken on the form. If any administrative delays are needed, a general statement will be given as to the actions planned.
4. Safety will review the form with Management for fiscal approval for projects which are identified to be unsafe and where measures have been identified to reduce or eliminate the hazard.
5. The completed form is then returned to the employee, or if submitted anonymously, posted on the safety bulletin board to reveal action(s) taken.
6. A summary of all near miss reporting will be submitted to Management on a monthly basis

III. EVACUATION PROCEDURES

A. Emergency Escape Procedures and Routes

Emergency escape routes shall be assigned to each person and an emergency escape route chart is posted on the workplace bulletin board, indicating by



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Department, a primary and a secondary exit or escape route in the event emergency evacuation is necessary. Department supervisors are to insure all employees within their department are familiar with this plan.

B. Procedure for Employees Who Remain to Operate Critical Operations Before They Evacuate

Employees may need to be maintained (not immediately evacuated) in order to secure critical operations before evacuation.

The following lists these employees and their duties:

Name	Title	Work Area	Special Assignment
H. Ward Davis	President	Back Office	Secure the area
Carol Hallabrin	Office Manager	Front Office	Secure the server

The preceding individuals have received special instructions and training by their immediate supervisors to ensure their safety in carrying out the designated assignments. A training record describing the instructions provided and the detailed procedures to be followed is maintained in the Emergency Plan Coordinator's Office.

C. Employee Accountability Procedures after Evacuations

When an evacuation signal is given, each supervisor involved will assume a station in the vicinity of the designated exit. The supervisor will insure all personnel are evacuated and will provide assistance to employees requiring same.

Once evacuated, all employees will then proceed to a previously designated accounting area for an additional head count by their supervisor. Supervisors will then report their department's status to the workplace manager or individual in charge. No one is to re-enter the building for any reason until the Fire Department or other responsible agency has notified us the building is safe for re-entry.

D. Procedures to be Followed by Employees Performing Rescue or Medical Duties

- **If the jobsite or building is equipped with an Automated External Defibrillator (AED), know where it is located, when it should be used and how to use it**
- **Notify police dispatch of the medical emergency**



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- Provide the following information to the dispatcher:
 - Your name
 - Type of emergency
 - Location of the (victim(s)/injured)
 - Condition of the (victim(s)/injured)
 - Any dangerous conditions
 - Phone number where emergency personnel can call you back
- Stay on the line until directed otherwise
- If necessary and only if a person is trained and certified in First Aid/CPR, may provide treatment and/or life support measures
- Ensure area is clear of non-essential personnel to provide an area for responding personnel to work in
- Ensure someone meets emergency responder to escort them to the patient's location
- Provide information to emergency responders including patient's condition when the medical emergency was discovered and any treatment that may have been performed on the patient.
- If patient is a H W Davis Construction, Inc., employee or subcontractor, ensure their immediate supervisor is notified of the medical emergency.
- Fill out any accident/incident report and submit it as required

BLOOD BORNE PATHOGENS INFORMATION

- **DO NOT ATTEMPT TO CLEAN UP BLOOD OR OTHER BODILY FLUIDS UNLESS YOU HAVE BEEN PROPERLY TRAINED**
- Notify the safety office and the safety manager will contact the appropriate authorities, who have the proper training necessary to clean up blood borne pathogens.

E. Alarm System

The alarm system shall provide warning for necessary emergency action. The alarm system is capable of being perceived above ambient noise or light levels of noise. The alarms used include fire/smoke detecting alarms, and a security alarm system.

F. Severe Weather/Tornado

When a hazardous weather alert is announced, all employees should immediately go to their designated tornado refuge area. All employees should stay in the tornado refuge area until given the all clear sign.

G. Training



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The following personnel have been trained to assist in the safe and orderly emergency evacuation of other employees.

Name	Title	Work Area
H. Ward Davis	President	Back Office
Carol Hallabrin	Office Manager	Front Office/Server
Colleen Geving	Safety Manager	General Office
All Site Superintendents	Superintendent(s)	Field

Training is provided for employees when:

1. The plan was initiated: August 1, 2016
2. New employees are hired or transferred
3. Annually, as needed

In-office employees are trained on the exit route they must take during an emergency, and where they will go to wait on an official headcount. Field employees are trained and review at the beginning of every new jobsite what route they will take during an emergency, and where they will go to wait on an official headcount.



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FIRST AID/CPR BLOODBORNE PATHOGENS:

This policy covers HW Davis, Inc. provisions for on-site emergency response when immediate first aid or cardiopulmonary resuscitation (CPR) is needed. This policy applies to all locations where there is no medical treatment facility in close proximity to the work site and for all operations.

A. DELEGATION OF RESPONSIBILITY

Supervisors/Superintendents and Project Managers are responsible for the implementation of this policy and for ensuring that employees follow the outlined procedures. The Safety Manager is responsible to assist all company locations in implementing this policy.

B. FIRST AID OPERATIONS

In some cases, HW Davis jobsites are located in areas where immediate emergency medical care is not located near the facilities. Therefore employees are required to be trained in first aid and CPR. An Employee should be appointed with the responsibility of creating a program whereby emergency response practitioners and emergency transportation services can be called upon in the event of an emergency. The names and phone numbers of an appointed company physician, hospital, and ambulance service closest to the facility shall be posted on bulletin boards and a memorandum should be communicated that this has been established as the company procedure for a medical emergency.

C. FIRST AID MATERIALS

First aid kits will be located for easy availability and all employees shall be familiar with their location. First aid kits will be stocked as specified by regulatory requirements (ANZI Z308.-1998). The contents of all first aid kits must be approved and the approved inventory list shall be placed inside each kit. First aid kits shall be routinely inspected to ensure they adequately stocked.

D. MEDICAL SERVICE

- a. First aid kits will be located in the office trailer or in company vehicles.
- b. All employees are to use the closest facility in the case of an emergency. In life threatening situations, 911 is to be used. In non-emergency cases, use the facilities listed below.
- c. The following will be posted in a prominent place at each jobsite so that medical service will be expedited:

Life-threatening

Dial 911



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Emergency
Non-Emergency

Closest hospital
Florida Hospital – CentraCare (closest to job);
Pine Castle Walk In – 407-850-0056
Or closest Walk-In Clinic

- d. Material Safety Data Sheets (MSDS) will be available should contact with a hazardous chemical occur.

E. BLOODBORNE PATHOGENS

Besides Hepatitis B and Human Immunodeficiency Virus (HIV), bloodborne pathogens include any pathogenic microorganism present in human blood, which can infect people who are exposed to blood containing the pathogen. Other examples include (but are not limited to) Hepatitis C, Malaria, Syphilis, Arboviral infections, relapsing fever, Human T-Lymphotropic Virus Type 1, and Viral Hemorrhagic Fever.

While HW Davis has no employees who, as part of their job duties are required to render First Aid this program covers all employees who are not trained as part of their job duties, but who need to know because of the chance of bloodborne pathogens being released in the workplace.

The exposure determination is based on identifying employees who may reasonably be exposed to blood, bodily fluids, or other potentially infectious materials occupationally. Occupational exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral infectious material (OPIM) that may result from the performance of an employee's duties. The primary factors to be considered are:

1. Probability of exposure
2. Potential routes of exposure

Every Supervisor and Project Manager must analyze job tasks and procedures to classify job duties into exposure categories without regard to the use of personal protective equipment (PPE). Employees in categories 1 and 2, and 3 listed below, comprise the groups who are covered by this section of the policy.



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CATEGORY 1

Job duties that routinely involve exposure to blood or bodily fluids are:

Consulting physicians and Nurses

CATEGORY 2

Job duties that do not normally involve exposure to blood or bodily fluids, but which may require performing tasks consistent in category 1 in unplanned or emergency situations are:

First aid Trained employees trained as emergency response team members

CATEGORY 3

Job Duties that do not normally involve exposure to blood or bodily fluids, but where employees are trained in first aid to enhance the overall safety process of the company. Any first aid rendered by these employees is done only as collateral duty, responding solely to injuries resulting from workplace incidents. This category also includes "Good Samaritan" acts, such as assisting co-worker with a nosebleed or controlling bleeding as the result of an at-fault or not-at-fault injury. Employees, who are trained in first aid but, not required, as part of their job duties to perform first aid, should be trained that if they perform "Good Samaritan" acts, they must immediately inform their Supervisor. Examples are administrative staff, laborers, and some field workers.

Employees are not required to render first aid or CPR, unless the performance of first aid is a part of an employee's designated job duty or the employee is participating in a special emergency medical response team. (Note: Emergency preparedness teams are not automatically considered emergency medical response teams unless they are properly trained to perform emergency medical duties including first aid/CPR as specified in their job description.) Employees designated to render lifesaving actions include those who voluntarily take on first aid responsibilities, as part of their job description, and are available during normal work shifts. These employees are considered Category 2 employees.

HW Davis prefers to train employees in first aid and CPR as part of the company's ongoing safety program. It is felt that understanding the seriousness of injuries and illnesses, and the associated first aid procedures, instills a positive attitude toward working safely. When emergency situations occur, the company wants employees to



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have all the skills necessary to handle the situation, but under no circumstances will any employee be forced to perform, first aid or CPR against their personal judgment.

These employees are considered.

If employees have questions regarding First aid or CPR, they should contact either Safety or their Supervisor.

F. METHODS OF COMPLIANCE

The best method for ensuring the health of workers is to understand and follow the concept of UNIVERSAL PRECAUTIONS as it applies to an employee's duties and work practices. This concept refers to the assumption that all blood and bodily fluids are contaminated with pathogens. Instruction in Universal Precautions shall take place during initial and annual training.

G. ENGINEERING AND WORK PRACTICE CONTROLS

Hand washing is the primary work practice control. If this is not possible, then alternative methods, such as antiseptic hand cleaners, in conjunction with clean cloths, paper towels, or antiseptic towels will be provided. When these alternative methods are used, employees should wash their hands (or other affected areas) with soap and running water as soon as feasible thereafter.

Rigid containers for used needle disposal, self-sheathing needles, and disposable needles shall be used in medical or first aid areas. Employees who bring kits for insulin or other required injections will be instructed to provide rigid containers for proper needle disposal.

CLEANING, DIS-INFECTION, AND STERILIZATION OF NON-DISPOSABLE EQUIPMENT SHOULD FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR SUCH EQUIPMENT. IF THE EQUIPMENT CANNOT BE CLEANED, DIS-INFECTED OR STERILIZED, IT SHOULD BE DISPOSED OF APPROPRIATELY.



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H. PERSONAL PROTECTIVE EQUIPMENT

Latex or vinyl gloves should be worn when first aid or medical treatment begins until treatment stops. One should assume all patients might be infectious. Always wear a new pair of gloves before handling another person.

Gloves, mouth shields, eye wear protection shall be made available. This equipment will be worn whenever there is a reasonable probability of blood or contact with contaminated body fluids. N-95 NIOSH approved particulate respirators masks will be used when protection is needed for the mouth and nose.

I. HOUSE KEEPING

All re-usable, potentially contaminated receptacles should be regularly inspected and decontaminated.

Exposed surfaces, first aid areas and reusable emergency equipment etc., should be cleaned of gross material and fluids and then wiped with an appropriate disinfectant-germicide.

Any contaminated laundry shall be handled with care and placed in leak proof, labeled and or color-coded bags. Gloves shall be worn by employees while handling any contaminated laundry.

Employees shall be instructed not to place any medical waste, blood specimens, or other body fluid contaminants in any refrigerators, in any common areas. This information shall be conveyed to employees during their initial training and annually thereafter. Inspections of these areas shall be conducted monthly in conjunction with other scheduled inspection items.

J. WASTE HANDLING

All medical waste, blood specimens, and other body fluids shall be placed in containers that are color coded and or labeled and exhibit the bio-hazard symbol. Medical waste includes, but are not limited to; needles, disposable equipment, and items such as solid dressings, sponges, and used gloves.

H W Davis Construction personal shall not be responsible for policing, picking-up, removing or disposing of certain materials that may be bio-hazards, on a job



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site or clients property. This includes, but is not limited to, items such as hypodermic needles, condoms, feminine hygiene products, clothing or materials used in the process of cleaning up bodily fluids. Field employees shall only be obligated to report / communicate any observations of potential bio hazards to their supervisor for their appropriate removal by others, unless previously arranged by H W Davis Construction, Inc. and the client.

H W Davis Construction, Inc. employees should never handle needles found on a jobsite or on a client's property.

Any bio-hazard containment shall be stored and locked in a designated area until sent to an appropriate disposal facility. Documentation of all waste disposal shipments shall be maintained indefinitely.

K. HEPATITIS B VACCINATION

Hepatitis B vaccinations will be made available to all category 1 and category 2 employees. It shall be offered after the employee has received the required training and within ten working days of assignment at no cost, at a reasonable time and place, and under the supervision of a licensed physician or health care provider. Documentation shall be on file of the dates on the employee's immunization. Pre-screening may not be required as a condition of receiving the vaccine.

Any employee who chooses to not be vaccinated must sign a declination form. This form should be sent to human resources for inclusion in the employee's personal file. The employee may later opt to receive the vaccine again, at no cost. If at a later date, booster doses are recommended by disease control centers, they will be offered to employees at no cost. Hepatitis B vaccinations shall also be offered to any employee, irrespective of designated category or classification, who has been involved in an occupational incident, which may have exposed them to bodily fluids or blood. An investigation and a written report of the incident shall be on file.

Hepatitis B vaccination shall also be made available to all employees, irrespective of designated category or classification, as soon as possible, but in no event later than 24 hours, after any employee has rendered assistance in any situation involving the presence of blood or other potentially infectious material (OPIM). This policy shall be observed whether or not an actual "exposer incident, as defined below may have occurred". An investigation and a written report of the incident shall be on file.



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L. POST EXPOSURE EVALUATION AND FOLLOW-UP

The company will provide a confidential medical evaluation and follow-up subsequent to any exposer incident. An exposure incident is defined to be contact by the eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact “piercing, such as needle sticks, cuts, abrasions,” with blood or potentially infectious materials, which occurs during a performance of an employee’s duties. In addition, incidents where first aid has been given involving the presence of blood or OPIM must be reported to a supervisor before the end of the work shift during which the first aid care incident occurred. The report will have the following elements;

- 1.) The names of all first aid providers who rendered assistance, regardless of whether personal protective equipment was used.
- 2.) A description of the incident, including time and date.
- 3.) A determination of whether or not, in addition to the presence of blood or other potentially infectious materials, and “exposure incident” occurred. This determination is necessary to insure that the proper post exposure evaluation, prophylaxis, and follow up procedure are made available immediately if there has been an “exposure incident”, as defined by this policy.
- 4.) Documentation of the route of exposure and the circumstances under which the exposure occurred.
- 5.) Identification and documentation of the source individual, unless this is not feasible or prohibited by law; the source individuals blood shall be tested as soon as feasible and after consent is obtained if determination of hepatitis B or HIV infectivity must be made. If consent is not obtained, it shall be documented that legally required consent could not be obtained. When the source individuals consent is not required by law the source individuals blood, if available, shall be tested and the results documented. Results of the source individuals testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws concerning the disclosure of the identity and infectious status of the source individual.
- 6.) The report shall be recorded on a list of such first aid care incidents. This report shall be available to all employees.



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Collection and testing of blood for Hepatitis B and HIV serological status as well as other test as deemed necessary will be provided to the exposed employee at no cost. The supervisor will provide the health care professional with the information needed.

Following any medical evaluation, the attending health care professional must provide the employee with a written opinion within 15 days. The written opinion must summarize the results of the medical evaluation, indicate any limitations on the employee's ability to receive Hepatitis B vaccine, and indicate that the employee has been informed of the results of the evaluation. All findings and diagnosis unrelated to the exposure shall remain confidential with the health care professional and the patient and shall not be included in the employee's medical records. If medical evaluation determines a positive exposure, then an injury/illness report shall be completed as detailed in the Accident Reporting section of this manual.

M. FIRST AID INCIDENT

The reporting requirements are stringent when employee's render first aid assistance in a situation that involves the presence of blood. The supervisor and/or safety shall ensure that:

1. A first aid report is rendered
2. A list of incidents where first aid assistance is rendered is established; and all reports of first aid care incidents are recorded on the list.

All other occupational exposure incidents involving exposure to bodily fluids or blood shall be recorded and maintained for each employee according to rules governing access. For blood borne pathogens the following should also be included:

- Employee's name and social security number;
- Employee's hepatitis B vaccination status including vaccine dates;
- Medical records related to the employee's ability to receive vaccinations;
- Results of examinations, medical testing, and post –exposure evaluation and follow up procedures;
- Health care professional's written opinion; and
- A copy of the information provided to the health care professional. Employee records must be kept confidential and maintained for the duration of employment plus 30 years.



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All employee medical records (in addition to exposure records) shall be kept confidential and secure during the workers employment plus one additional year on location. After this time such records shall remain in possession of HW Davis Human Resources, ensuring records are retained for 30 years, after which time they may be destroyed.

A copy of the employee's record may not be released without written consent to any person within or outside of the workplace, with the exception that these records shall be made available to government officials or to their designated representatives.

N. LABELS AND SIGNS

It is not the general policy to store any regulated waste at any HW Davis facility. However, should this occur, warning labels shall be affixed to containers of regulated waste, and to refrigerators and freezers containing blood or other potentially infectious material. The label shall include the biohazard logo, and shall conform to any other regulatory requirements.

Labels shall be fluorescent orange or orange red or predominately so, with lettering or symbols in a contrasting color

Individual containers of blood or other potentially infectious material (OPIM) placed in labeled containers during storage, transport, shipment or disposal, do not need to be labeled.

O. TRAINING

Blood born Pathogen module training shall include the following elements:

1. General explanation of the epidemiology and symptoms of bloodborne infectious diseases.
2. Transmission routes of bloodborne diseases.
3. Explanation of the Bloodborne Pathogen Exposure Control Policy.
4. Recognition of exposure situations.
5. Explanation of the use and limitations of methods that will prevent or reduce exposure, including engineering controls, work practices, and personal protection equipment.
6. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
7. Explanation of the basis for selection of personal protective equipment
8. Information regarding Hepatitis B vaccine, including information on its efficacy,



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Safety, method of administration, benefits of vaccination, and that it will be offered free of charge.

9. This policy and the procedures to be followed in the event of an exposure to blood-borne pathogens including persons to contact in an emergency, and the medical follow-up that will be available.
10. Post-exposure evaluation and follow-up program.
11. Explanations of signs, labels and color-coding.
12. An accessible copy of the regulatory text of the OSHA standard and an explanation of its contents.
13. An opportunity for a question and answer period during the training.

P. RECORD KEEPING

This policy, and the written assessments of the facilities control plan for occupational blood-borne pathogens, will be maintained at the HW Davis main office. This policy will be reviewed annually by the Safety Manager to ensure it is updated as needed.

All training records shall be completed for each employee trained in First Aid/CPR and bloodborne pathogens and kept for 3 years at the HW Davis main office. Employees may review their medical and training records during normal business hours and copies of their records will be provided to them or their authorized representative upon written request.



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MANDATORY SAFETY MEETINGS:

The following mandatory meetings are required by HW Davis Inc. Any Supervisor may conduct more than the requirement and is strongly encouraged to continue such practices.

A. SAFETY TAILGATE MEETINGS

Safety tailgate or toolbox meetings are weekly, 10-15 minute on-the-job meetings, which are intended

as safety training for all field employees. Safety training is communicated and enforced through these weekly meetings.

- Meetings are coordinated by the Superintendents/Supervisors and shall be held on a specific day and time each week. The Superintendent is responsible for ensuring that the crew remains focused on the training.
- HW Davis Safety or Office will provide the topics on a weekly basis. Safety will assign additional topics for specific issues that may arise on the job sites.
- Superintendents are required to complete the tailgate/toolbox meeting form and submit it to Safety or the office on a weekly basis
- The Safety officer or Office will collect weekly tailgate meeting forms and file them in the office. HW Davis shall retain these records for (5) years for audit purposes'.

B. QUARTERLY SAFETY MEETINGS

Quarterly Meetings should focus on maintaining a hazard free workplace. The meeting should be attended, at minimum, by foreman and above.

Topics that should be covered include:

- Past accidents or near misses and how to avoid them in the future
- Any safety concerns from crews, clients or owners
- OSHA compliance issues
- Review weekly tailgate topics
- Provide information on training
- Review periodic worksite inspections
- Review finding of any accidents, injuries or incidents



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- Verify abatement actions
- Occasional specific training
- Encourage employee participation and ensure that all safety suggestions and recommendations are considered
- Use hands on examples whenever possible
- A sign-in sheet and minutes are to be kept on file (5 yrs.) and posted or distributed

C. SAFETY COMMITTEE

A Safety Committee has been established to identify potential hazards in our workplace and to recommend improvements and identify corrective measures. The committee will meet on a quarterly basis for the purpose of fostering employee involvement concerning safety issues and safety improvement.

The key to a successful safety committee is to have a clearly defined purpose. The more specific the focus of the committee, the better the results will be.

This committee consists of the Safety Coordinator, Personnel Director, alternate Project Managers, and field Representatives. This committee will meet once every 3 months and minutes of that meeting will be posted within one week of the meeting.

The Safety Committee will also assist Management in reviewing and updating Workplace Safety Rules, implementing changes to Safety Program and accepting anonymous complaints and suggestions from employees.

The Safety Committee will review such topics as:

Hazard Identification

Safety Inspections

Safety Communication

Training

Hazardous material handling

Accident investigation

Emergency response



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The safety officer will be responsible for coordination of these meetings. The Safety officer will notify committee members of the date, time, and place of meeting, along with the specific agenda items for that meeting.

The agenda will be structured to include:

Hazard Identification

Safety Inspections

Safety Communications

Training

Hazardous material handling

Accident Investigation

Emergency response

The agenda will be structured to include:

Topic introduction

Desired outcome statement

Discussion options

Selection of action items

Assignments of roles and responsibilities (*who will do what by when*)

Review Employee requests, suggestions, and complaints

The Safety Manager will keep meeting minutes and provide copies to committee members. The minutes will also be posted on the bulletin board.



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FIRE PREVENTION PLAN:

PURPOSE

OSHA's Fire Prevention Plan regulations, found at 29 CFR 1926.24 and Subpart F, require specific program elements. This plan addresses fire emergencies reasonably anticipated to occur through all phases of the construction, repair, alteration, maintenance or demolition at all of our jobsites.

The basic objective of fire protection is to prevent personal injury and loss of life due to unwanted fire in the workplace. The most important factors to consider in providing adequate employee safety in a fire situation are the availability of access to safe areas, and employee training as to the proper procedures to follow in the event of a fire.

This plan is in place to control and reduce the possibility of fire and to specify the type of equipment to use in case of fire. This plan addresses the following issues:

- Major work fire hazards and their proper handling and storage procedures
- Potential ignition sources for fires and their control procedures
- Type of fire protection equipment or systems which can control a fire
- Regular job titles of personnel responsible for maintenance of equipment and systems installed to prevent or control ignition of fires and for control of fuel source hazards

Under this plan, our employees will be informed of the plan's purpose, preferred means of reporting fires and other emergencies, types of evacuation to be used in various emergency situations, and the alarm system. The plan is closely tied to our emergency action plan where procedures are described for emergency escape procedures and route assignments, procedures to account for all employees after emergency evacuation has been completed, rescue and medical duties for those who perform them. Please see emergency action plan for this information.

Safety Manager is primarily responsible for overall management of this plan with direction from the Operations Manager who will oversee this plan.

The Safety Manager and Operations Manager will periodically review and update the plan as necessary. The written plan is available upon request to employees, their designated representatives, and any OSHA officials who may ask to see it.

We strive for clear understanding, safe behavior, and involvement in the program from every level of the company.



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SAFETY OFFICER/MANAGER RESPONSIBILITIES

- a. Continue to develop a fire prevention plan for regular work hours and after hours work conditions.
- b. Immediately notify the fire or police departments and the building owner in the event of a fire affecting the office.
- c. Integrate the fire prevention plan with existing general emergency plan covering the occupied building.
- d. Distribute procedures for reporting a fire, the location of fire exits, and evacuations routes to each employee.
- e. Conduct drills to acquaint employees with fire procedures, and to judge their effectiveness.
- f. Satisfy all local fire codes and regulations as specified.
- g. Train designated employees in the use of fire extinguishers and the application of medical fire-aid techniques.
- h. Perform monthly inspections on fire extinguishers.
- i. Keep key personnel home telephone numbers in a safe place in the office for immediate use in the event of a fire. Distribute a copy of the list to key persons to be retained in their homes for use in communicating a fire occurring during non-work hours.
- j. Decide to remain in or evacuate the workplace in the event of a fire.
- k. If evacuation is deemed necessary, the safety officer ensures that:
 - All employees are notified and a head count is taken to confirm total evacuation of all employees.
 - When practical, equipment is placed and locked in storage rooms or desk for protection.
 - Coordinate security protection where/as needed (employee records, property, etc.)

In addition, other responsibilities include those unique to the facility. The Safety Manager and Operations Manager will be responsible for coordinating all fire training and housekeeping management and take necessary actions to keep the facility free of hazards and fire ignition potential. All Superintendents are required to be on the job at all times during working operations and performing similar fire protection responsibilities.

WORKPLACE FIRE HAZARDS

It is the intent of this company to assure that hazardous accumulations of combustibles waste are controlled so that a fast moving fire, rapid spread of toxic smoke, or an explosion will not occur. Employees are to be made aware of the hazardous properties of materials in their workplace, and the degree of hazard each poses.



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Fire prevention measures must be developed for all fire hazards found. Once employees are made aware of the fire hazards in their work areas, they must be trained in the fire prevention measures developed and use them in the course of their work. For example, oil soaked rags must be treated differently than the general paper trash in office areas. In addition, large accumulations of waste paper or corrugated boxes, etc., can pose a significant fire hazard. Accumulations of materials, which can cause large fires or generate dense smoke that are easily ignited or may start from spontaneous combustion, are the types of materials with which this fire prevention plan is concerned.

Such combustible materials may be easily ignited by matches, welders' sparks, cigarettes, and similar low level energy ignition sources. It is the intent of this company to prevent such accumulation of materials. Daily jobsite inspections should be implemented and coordinating clean-up details as deemed necessary.

Fuel is used throughout the jobsites as an energy source for systems or equipment. This fuel can be a significant fire hazard and must be monitored and controlled.

All combustible liquids (i.e. diesel fuel, motor oils, and hydraulic fluids) will be properly contained and stored in such a manner as to prevent leaks and punctures.

All fuel should be stored and transported in proper metal containers (safety cans) and labeled.

- Fuel=5 gallon red metal ANSI approved gas can.
- Diesel= 2 ½ or 5 gallon yellow metal ANSI approved gas can.
- Mixed fuel= 2 ½ or 5 gallon blue metal ANSI approved gas can.

IMPORTANT POINTS TO REMEMBER

The emergency number 911 is to be used at all times.

- a. Compliance with the OSHA 1926 CONSTRUCTION SAFETY & HEALTH codes, Section 1926.150 through 1926.155 will be strictly enforced.
- b. Fire extinguishers of appropriate type for individual hazards will be provided as needed for various locations. The extinguishers will be serviced and maintained as recommended by manufacturer. Employees are to inform HW Davis of any incident involving fire or use of a fire extinguisher.
- c. Fire prevention will be an integral part of safety education and safety meetings.
- d. Subcontractor/Sub-subcontractor's Field Superintendent will be continually alert to possible fire hazards and will inform HW Davis immediately of any concerns.
- e. Fire exits will be unobstructed for egress, clearly marked with (manual) operable doors.
- f. Smoking will be prohibited except in designated areas.



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- g. Portable heating apparatus shall NOT be used unless authorized by HW Davis Field Superintendent.
- h. Hot Work (welding, burning or cutting or any work involving devices that produce flame, heat, or spark) will be allowed ONLY after a permit has been obtained. Subcontractor / Sub-subcontractor will notify HW Davis Field Superintendent / Project Manager at least 24 hours prior to commencing and will not proceed until authorized by HW Davis.



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DRUG-FREE WORKPLACE POLICY:

- a. All employees are required to submit to drug screen as a condition of offer of employment. All subcontractors working for H W Davis Construction, Inc. will be required to have an in-place Drug-Free Workplace Policy program which must meet, at a minimum, the requirements of H W Davis Construction and as mandated by the Owner.
- b. Anyone known, or with reasonable suspicion, to be under the influence of alcohol or drugs shall not be allowed on, or to remain, at the job site.

H W Davis Construction, Inc. (the Company) recognizes that drug and alcohol abuse in the workplace leads to decreased productivity, increased risk of accidents, high turnover rates and decreased morale. Because the Company is committed to a safe and healthy workplace, we have established a Drug-Free Workplace Program and have adopted the following policy on drug and alcohol abuse. This policy conforms with F.A.C. 38F.9.005(2)(a). (Where stated "drugs, illegal drugs" include Marijuana)

GENERAL STATEMENT

The Company will not tolerate the use of illegal drugs on or off the job or the use of alcohol on the job.

Therefore, the Company will test, at company expense, all job applicants for drug use as outlined in this Policy. Further, the Company will test, at company expense, any current employee for drug or alcohol use if a reasonable suspicion exists that the employee is in violation of this Policy; as a regular part of fitness for duty examination; after a work related injury or incident, and as a follow-up procedure to any drug or alcohol treatment program. A positive drug test can lead to withdrawal of an offer of employment, or a positive drug or alcohol test can lead to termination as appropriate. All drug and alcohol testing will conform to the requirements of this Policy and to State and Federal law.

POSSESSION OF DRUGS AND ALCOHOL ON PREMISES

Employees who bring drugs or alcohol to work are subject to immediate dismissal.

Drugs and alcohol will not be permitted in the workplace. Any employee in possession of or using alcohol or illegal drugs on Company premises and/or jobsites during working hours will be subject to immediate dismissal and report, if appropriate, to law enforcement agencies. Company premises and/or jobsites include parking lots and other outlying areas. Use or possession of alcohol or illegal drugs on the Company premises and/or jobsites will be reported to a supervisor who will verify the report and report the incident to the person responsible for terminating employees.



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VISIBLE IMPAIRMENT

Employees will not be allowed to work while under the influence of drugs or alcohol

Any employee who reports to work visibly impaired or becomes visibly impaired while at work will not be allowed to continue work. An employee or other supervisor who observes the visible impairment of

another employee should seek the opinion of a supervisor or competent co-worker regarding the extent of the employee's visible impairment.

The supervisor of the visibly impaired employee should consult privately with the employee in order to determine the basis for the impairment. If, in the opinion of two supervisors, or a supervisor and an additional competent co-worker, the employee's visible impairment is the result of alcohol or illegal drugs, the employee will be required to submit to drug testing as outlined in the Reasonable Suspicion portion of the Active Employee Drug Testing section of this policy and shall be subject to penalty therein. In addition, the employee will be sent home immediately by taxi or ***other safe transportation*** including transportation by other employees if necessary.

PRE-EMPLOYMENT DRUG TESTING

Job offers are conditional pending pre-employment drug test results.

If the Company chooses to extend an offer of employment to a job applicant who otherwise satisfactorily meets the Company's standards for employment, the offer will be conditional upon the job applicant

submitting to a drug test to determine the presence of illegal drug abuse. This test will be administered in compliance with both State and Federal law and will be conducted only by a testing laboratory approved by the Florida Agency for Health Care Administration.

Persons receiving a conditional job offer will have an opportunity to confidentially report the use of prescription or non-prescription, medications both before and after being tested to the M.R.O.

Job applicants shall also receive a list of common medications which may alter or affect a drug test. This list was developed, and amended from time to time, by the Florida Agency for Health Care Administration or the Department of Labor and Employment Security. Further, job applicants will be given the names, addresses and telephone numbers of approved local alcohol and drug rehabilitation programs.

A drug test indicating the use of illegal drug abuse will result in revocation of an offer of employment. Job applicants will have the right to challenge any drug test or request a retest



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at the job applicant's expense. The procedures for challenging a drug test or requesting a retest are outlined under the Review of Test Results section of this Policy.

ACTIVE EMPLOYEE DRUG TESTING

The Company reserves the right to ask any employee to submit to drug testing under the following conditions:

(A) Involvement in accident/incident:

When an employee is involved in an accident which causes injury to himself or to any other person or damage to any property. If, because of the accident, an employee is unable to submit to drug testing immediately, the employee will authorize the release of any medical reports or documentation regarding the presence of illegal drugs or alcohol in the employee's body at the time of the accident to the MRO. Refusal to agree to this release will result in termination of the employee.

(1) Post Accident Drug Testing - Post-accident drug testing will be conducted after every reportable accident, but in no case, no later than 32 hours after the accident.

(a) Reportable accident defined as follows:

Any accident which results in (1) a death of a human being, (2) bodily injury to a person who, as a result of the injury, receives medical treatment (excluding first aid as defined by OSHA 300 guidelines) away from the scene of the accident or (3) total damages to all property aggregating to \$3,000.00 or more, based on actual costs or reliable estimates.

(b) OSHA 300 guidelines defines first aid as any one-time treatment for minor injuries, and any follow-up visit for the purpose of observation of minor scratches, cuts, burns, splinters and so forth, which do not ordinarily require medical care. Such one-time treatment, and follow-up visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel. The injury is **NOT** considered minor if it must be treated only by a physician or licensed medical personnel, (including stitches), it impairs bodily functions (i.e., normal use of senses, limbs, etc.), it results in damage to the physical structure of a non-superficial nature (fractures) or involves complications requiring follow-up medical treatment.

(B) Reasonable Suspicion:

(1) If, in the opinion of two supervisors, or a supervisor and an additional competent co-worker, a reasonable suspicion exists to believe that any employee may be abusing or under the influence of illegal drugs or alcohol, the supervisory personnel will document, in



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writing, the basis for their reasonable suspicion. If the reasonable suspicion is based on a report by another person, this report must be confirmed by a supervisor.

(2) If, in the opinion of two supervisors, or a supervisor and an additional competent co-worker, an employee has sold, or otherwise solicited illegal drugs or alcohol to any other person during working hours, the supervisory personnel will document, in writing, the basis for their reasonable suspicion. If the reasonable suspicion is based on a report by another person, this report must be confirmed by a supervisor. Nothing herein shall prevent the Company from immediately terminating any employee selling or otherwise soliciting illegal drugs or providing or selling alcohol to any other person during working hours upon a report by the supervisor(s) to the person in charge of terminating employees. Among other things, such facts and inferences may be based upon (but not limited to) are as follows:

- a. Observable phenomena while at work, such as direct observation of drug or alcohol use or of the physical symptoms or manifestations of being under the influence of a drug or alcohol.
 - b. Abnormal conduct or erratic behavior while at work or a significant deterioration in work performance.
 - c. A report of drug use, provided by a reliable and credible source which has been independently corroborated.
 - d. Evidence that an individual has tampered with a drug test during his/her employment with the current employer.
 - e. Information that an employee has caused or contributed to an accident while at work.
 - f. Evidence that an employee has used, possessed, sold, solicited or transferred drugs while working or while on the employer's premises or jobsite, or while operating the employer's vehicle, machinery or equipment.
 - g. An on-the-job injury and/or accident/incident.
- (C) Upon return from any extended absence. An extended absence is defined as a continuous absence of three or more months.
- (D) Pursuant to any required employee fitness for duty examination.
- (E) As a follow-up to any referral to the Employee Assistance Program or enrollment in a drug or alcohol abuse program. This follow-up testing will continue at random for two years after referral to an Employee Assistance Program or enrollment in a drug or alcohol abuse program. The Company reserves the right to waive follow-up testing in the event an employee voluntarily submits to an Employee Assistance Program or drug or alcohol abuse program.



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DOCUMENTATION OF REASONABLE SUSPICION TESTING

Within seven (7) days after testing based on reasonable suspicion, an employer shall detail in writing the circumstances which formed the basis of the determination that reasonable suspicion existed to warrant the testing. The original documentation shall be kept confidentially by the employer and retained for at least one (1) year.

EMPLOYEE ASSISTANCE AND SUBSTANCE ABUSE EDUCATION

The Company recognizes that substance abuse, whether alcohol or illegal use/abuse of controlled substances or prescription drugs, is a treatable condition. All employees are encouraged to voluntarily seek assistance prior to the time where disciplinary action would occur following a positive confirmed drug test. Employee chooses treatment at his/her own expense.

The employer will maintain a current file of providers of alcohol and drug abuse programs, mental health programs and other providers to assist employees with personal or behavioral problems. This list is included in the Company Policy or an employee may confidentially request a copy from the drug program manager, Doni Denning.

The annual substance abuse education course for employees will be provided to assist employees in identifying personal and emotional problems which may result in the misuse of drugs or alcohol. This course will also include a presentation on the legal, social, physical and emotional consequences of the misuse of alcohol and drugs.

LOSS OF WORKER'S COMPENSATION BENEFITS * DRUG RULE STATEMENT

Employees who are injured on the job will be drug tested; Positive results may cause loss of worker's compensation benefits

If an employee is injured in the scope of his/her employment and drug tests or other medical evidence indicates the presence of drugs or alcohol in the employee's body at the time of the accident, the employee may be required to forfeit any medical or indemnity benefits available under the Florida Workers' Compensation Statute (F.S. 440.101(2)). This penalty is in addition to any other penalties that might apply either under this policy or under applicable law.

CONFIDENTIALITY STATEMENT

All drug test results are strictly confidential

All test results of active employees will be strictly confidential, except as consented to by the employee, if placed at issue by the employee in any legal, administrative or other proceeding to determine compensability of a workers' compensation claim or as otherwise in accordance with Rule 38F-9 or in determining compensability under Florida Statute, Chapter 440.



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MEDICATION DISCLOSURE

Disclosure of the use of medications to the MRO is confidential

Employees will have an opportunity to confidentially report the use of prescription or non-prescription medications to the **Medical Review Officer** at the drug testing laboratory both before and after being tested. Such reports by employees will not become a part of the employee's personnel file. Employees will also receive a list of common medications which may alter or effect a drug test, including the list of medications developed and amended from time to time by the Florida Agency for Health Care Administration or the Department of Labor and Employment Security. Employees will also be given the names, addresses and telephone numbers of approved local alcohol and drug rehabilitation programs and will be given access to an Employee Assistance Program. Participation in an Employee Assistance Program will be the sole financial responsibility of the employee. Further, employees will have the right to challenge any drug test or request a retest at employee's expense. The procedures for challenging a drug test or requesting a retest are outlined under the Review of Test Results section of this Policy.

CONSEQUENCES OF REFUSING A DRUG TEST OR TREATMENT

Refusal to cooperate will result in termination

(1) Refusal to cooperate

Job Applicant: Any person receiving a conditional offer of employment who refuses to submit to drug testing, or who alters, adulterates or otherwise interferes with drug testing collection, samples, or analysis is immediately disqualified from employment by the Company.

Employee: Any employee who refuses to submit to drug and alcohol testing, as stated in Active Employee Drug Testing, when required, or who alters, adulterates, or otherwise interferes with drug testing collection, samples or analysis, will be immediately terminated and may forfeit any medical or indemnity benefits available under the workers' compensation regulations (F.S. 440.101(2)).

(2) Refusal to accept treatment or failure to rehabilitate

Any employee who rejects a treatment program offered through the Employee Assistance Program, or who leaves a treatment program prior to being properly discharged, will be immediately terminated from employment with the Company. This sanction applies regardless of whether the Company referred the employee to the treatment program or Employee Assistance Program or whether the employee voluntarily sought treatment.



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(3) Limitations on referral to employee assistance program

The Company wishes to make every effort to rehabilitate its employees who may be experiencing drug or alcohol problems. To this end, the Company will not retaliate in any manner against an employee who is referred to an Employee Assistance Program or treatment program, or who

voluntarily refers themselves to the Employee Assistance Program or submits to treatment in a drug or alcohol abuse program. Should an employee be referred to an Employee Assistance

Program for drug or alcohol treatment or enroll in a drug or alcohol treatment program 2 times within a three (3) year period, that employee will be immediately terminated.

REVIEW OF DRUG TEST RESULTS AND EMPLOYEE RIGHT TO CONTEST OR EXPLAIN DRUG TEST RESULTS

Employee has the right to contest results

Review of test results:

Verification of test results: The MRO shall evaluate the drug test results of an employee or job applicant and verify that the specimens were collected, transported, and analyzed under proper procedures. The MRO shall make this determination by checking any Chain of Custody forms for required signatures, procedures and information. If an employee or job applicant fails the drug test, the MRO shall also determine if any alternative medical explanations caused the employee or job applicant to fail the drug test. The MRO shall maintain the confidentiality of any information received from drug tests; except, as authorized by the employee or job applicant, as otherwise provided by law, or if placed at issue by the employee or job applicant in any legal, administrative or other proceeding.

Contact with Employee or Job Applicant: In the event a job applicant or employee fails a drug test, the MRO will inform the employee or job applicant of the result within three (3) days after the MRO receives the test result from the testing laboratory or clinic. The employee or job applicant will have five (5) days after notification from the MRO to discuss the test results with the MRO, submit documentation of any prescription drugs relevant to the test result to the MRO, or request a retest at the employee or job applicant's expense.

MRO UNABLE TO CONTACT EMPLOYEE/JOB APPLICANT ***MRO contact with employee / job applicant***

If the MRO is unable to contact an employee or job applicant within three (3) days, the MRO shall contact the Company and request that the Company direct the employee or job applicant to contact the MRO as soon as possible. If the employee or job applicant does not



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contact the MRO within two (2) days from the request by the Company, the MRO shall verify that the job applicant or employee failed the drug test. Should the job applicant or employee present satisfactory documentation that serious illness, injury, or other circumstances unavoidably prevented the job applicant or employee from contacting the MRO within the specified time frame and presents legitimate explanation for the failure of the drug test, the MRO may change the test result. However, if the job applicant or employee refuses to talk with the MRO regarding a drug test failure, the MRO shall validate the failure and record the refusal to discuss the failure in the remarks section of the verification form.

EXPLANATIONS FOR DRUG TEST RESULTS

The MRO will review all results carefully

After contacting an employee or job applicant, the MRO will inquire as to whether prescription or over-the-counter medications could have caused a positive test result. If the MRO determines that the employee's medical explanation is not a legitimate medical explanation for the positive test result, the MRO will, within 15 days, give a written explanation of the MRO's findings to the employer.

If the MRO determines that a legitimate medical explanation exists for the test result, the MRO shall report to the Company that the employee or job applicant passed the drug test. If, however, the legitimate medical explanation is caused by legal use of a prescription or over-the-counter medication and the MRO feels that the legal use of the drug would endanger the employee, job applicant, or others, or if the employee or job applicant is in a safety sensitive or special risk position, then the MRO may recommend that the employee or job applicant passed the drug test due to a validated prescription or other medication but shall request that the Company place the employee or job applicant in a position which would not threaten the safety of the employee, job applicant or others.

RETEST REQUEST

Retesting conducted after written test results received

Retest requests by an employee or job applicant: Should an employee or job applicant request a retest of an original specimen, the MRO will process this request within one hundred, eighty (180) days after the original test. The retest will conform to all the same requirements and procedures applicable to the original test. The retest will occur at another laboratory approved by the Florida Agency for the Health Care Administration and selected by the employee or job applicant. The employee or job applicant shall bear the cost of this retest. Any retest must be done on the original specimen because new specimens cannot verify the test results. Such retesting shall be done as specified in the Workers' Compensation Drug-Free Workplace Statute 440.102(5)(g).

It is the responsibility of the applicant or employee to notify the laboratory of any administrative or civil actions brought pursuant to Chapter 440, Florida Statutes, Drug-Free Workplace requirements. Employees and job applicants have the right to consult



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the testing laboratory for technical information regarding prescription and non-prescription medication.

Retest requests by MRO: Should the MRO question the validity of the testing procedure, the MRO may, at his/her sole discretion (1) order a re-analysis of the original sample at any laboratory or clinic approved by the Florida Agency for Health Care Administration; or, (2) request additional samples from the employee or job applicant for testing.

TYPES OF TESTS CONDUCTED

The types of drug tests required by law

Initial tests for all drugs other than alcohol shall use an immunoassay method. Initial tests for alcohol shall use an enzyme oxidation method. All tests to confirm an initial positive result for drugs other than alcohol shall use a gas chromatography/mass spectrometry method. All tests to confirm positive results for alcohol shall use a gas chromatography method.

NOTIFICATION OF THE COMPANY

How and when the company is notified of results

After contacting the employee or job applicant as outlined in this section and conducting any retests, the MRO will notify the Company, in writing, of the verified test results, either negative, positive or invalid.

If the MRO, employee or job applicant requested a retest, the MRO will report only the verified results of the retest to the Company. The MRO will file any required Chain of Custody forms under confidential procedures. The MRO will maintain these forms for five (5) years from the date of the test.

HOW EMPLOYER NOTIFIES EMPLOYEE OF POSITIVE TEST RESULTS

Within five (5) working days after the receipt of the positive confirmed test results from the MRO, the employer shall inform the employee in writing of such positive test results, the consequences of such results, and the options available to the employee including the right to file an administrative or legal challenge. (F.A.C. 38F-9.008(3)).

EMPLOYEE'S DUTY TO NOTIFY LABORATORY OF LEGAL ACTION CONCERNING TEST RESULTS

Employees must notify 30 days in advance of legal action

Employees are required to notify the Company and the drug testing laboratory thirty (30) days prior to bringing any legal action concerning the results of a drug test. Such notification shall be a condition precedent to any such legal action (38F-9.005(2)(h)).



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LABORATORY PROCEDURES/DRUGS FOR WHICH THE EMPLOYER MAY TEST

The Company may test for the following drugs

The collection of specimens and the performance of the drug tests shall be in accordance with the Florida Workers' Compensation Drug Testing Rules. The laboratory selected by the employer must be licensed by the Florida Department of Health and Rehabilitative Services to perform tests in accordance with Florida Statute 112.0455 and Rules, Chapter 10E-18, Florida Administrative Code.

The employer may test for any or all of the following drugs at the cut-off levels established by the Florida Department of Health and Rehabilitative Services (10E-18).

All drug/alcohol tests will be initially screened using an immunoassay except that the initial screen for alcohol shall be an enzyme oxidation methodology.

All specimens identified as positive on the initial screen shall be confirmed using Gas Chromatography / Mass Spectrometry methodology (GC / MS), except that alcohol will be confirmed using gas chromatography.

The cut-off levels for the drug-free workplace program are:

<u>SUBSTANCE</u>	<u>INITIAL CUT-OFF</u>	<u>CONFIRMATION CUT-OFF</u>
Alcohol	0.05 g/dl	0.05 g/dl
Amphetamines	1,000 ng/ml	500 ng/ml
Cannabinoids	100 ng/ml	15 ng/ml
Cocaine	300 ng/ml	150 ng/ml
Phencyclidine	25 ng/ml	25 ng/ml
Methaqualone	300 ng/ml	150 ng/ml
Opiates	300 ng/ml	300 ng/ml
Barbiturates	300 ng/ml	150 ng/ml
Benzodiazepines	300 ng/ml	150 ng/ml
Methadone	300 ng/ml	150 ng/ml
Propoxyphene	300 ng/ml	150 ng/ml

All levels equal to or exceeding the Confirmation Cut-Off levels will be reported as positive to the Medical Review officer (MRO). Laboratories shall report all quantitative alcohol results above 0.05 g/dl level to the MRO who shall be responsible for reporting results to the employer if appropriate.

Brand names/common names for the above substances will be found on the following:



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OVER-THE-COUNTER AND PRESCRIPTION DRUGS WHICH COULD ALTER OR AFFECT THE OUTCOME OF A DRUG TEST

ALCOHOL (beer, wine, liquor, etc.)

All liquid medications containing ethyl alcohol (ethanol). Please read the label for alcohol content. As an example, Vicks Nyquil is 25% (50 proof) ethyl alcohol, Comtrex is 20% (40 proof), Contact Severe Cold Formula Night Strength is 25% (50 proof), and Listerine is 26.9% (54 proof)

AMPHETAMINES (speed, eve, biphphetamine, Desoxyn, Dexedrine, etc.)
Obetrol, Biphphetamine, Desoxyn, Dexedrine, Didrex.

COCAINE (coke, blow, snow, flake, crack, etc.)
Cocaine HCl topical solution (Roxanne).

PHENCYCLIDINE (PCP, angel dust, hog, etc.) Not legal by prescription.

METHAQUALONE (Qualudes, ludes, etc.) Not legal by prescription.

OPIATES ((heroin, codeine morphine, opium, Dover's powder, paregoric, parepectolin, etc.)

Paregoric, Parepectolin, Donnagel PG, morphine, Tylenol with Codein, Empirin with Codein, APAP with Codeine Aspirin with Codeine Robitussin AC, Guaiatuss AC, Novahistine DH, Novahistine Expectorant, Dilaudid (Hydromorphone), M-S Contin and Roxanol (morphine sulfate), Percodan, Vicodin,

BARBITURATES (Phenobarbital, butabarbital, secobarbital, tuinal, amytal, etc.)
Phenobarbital, Tuinal, Amytal, Membital, Seconal, Lotusate, Fiorinal, Fioricet, Esgic, Butisol, Mebaral, Butabarbital, Butabital, Phrenilin, Triad, etc.

BENZODIAZEPINES (Librium, valium, activan, azene, clonopin, dalmone, diazepam, halcyon, poxipam, restoril, serax, transene, vertron, xanax, etc.)

Ativan, Azene, Clonopin, Dalmane, Diazepam, Librium, Xanax, Serax, Tranxex, Valium, Vertran, Halcion, Paxipam, Restoril, Centrex

METHADONE (Dolophine, Methadose, etc)

PROPOXYPHENE
Darvocet, Darvon N, Dolene, etc

DESIGNER DRUGS (ecstasy, etc)



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The Company reserves the right to expand or otherwise modify the number or types of drugs tested at any time. The Company will provide employees with sixty (60) days written notice of any expansion or modification of the drugs tested under the Company Policy.

COLLECTIVE BARGAINING STATEMENT

Nothing in this Policy is intended to effect those rights provided for by any collective bargaining agreement between the Company and its employees.

EMPLOYEE'S RIGHT TO CONSULT LABORATORY

All employees may consult with the testing laboratory or MRO for technical information regarding the effects of prescription and non-prescription medications on drug testing. Any consultation by an employee with the testing laboratory or MRO for the purpose of gaining technical information shall be confidential. An MRO must supply technical information to any employee who fails a drug test.

REPORT OF DRUG CONVICTIONS

All employees shall report any drug conviction to the Company within (5) days from the date of conviction. The Company will report the conviction to any Federal agency with which the Company has a contract, or if otherwise required by Federal law, within ten (10) days from the notification of the conviction by the employee. The employee will be referred to the Employee Assistance Program immediately upon notification of the conviction. Failure to report a drug conviction to the Company within the applicable time periods will result in immediate termination of the employee, unless good cause exists for the employee's failure to report the conviction to the Company. Arrest for a drug or alcohol offense shall be considered Reasonable Suspicion allowing the Company to test the arrested employee for the presence of alcohol or illegal drugs.

DRUG AND ALCOHOL ABUSE CENTERS

Choices Counseling, 1347 Palmetto Avenue, Winter Park	407-628-3443
Florida Hospital Outpatient, 3000 Dade Avenue, Orlando	1-800-869-161
	(24 hours)
ACT Centers:	
1510 E. Colonial Drive, Orlando	407-896-2096
750 S. Orange Blossom Trail, Orlando	407-425-2550
4300 S. Semoran Blvd., Orlando	407-381-9616
5761 S. Orange Blossom Trail, Orlando	407-438-2088



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8617 E. Colonial Drive, Orlando	407-380-2779
2354-B Winter Woods Blvd., Winter Park	407-679-6633
801 W. State Road 436, Altamonte Springs	407-774-1264
2 S. Cumberland Avenue, Ocoee	407-656-8660
800 Office Plaza Blvd., Kissimmee	407-846-2511
Center for Drug Free Living, 1800 W. Colonial Drive, Orlando, FL	407-843-0041
Central Florida Treatment Center, 1800 W. Colonial Dr., Orlando, FL	407-423-6612
The Recovery Source, 41 Circle Avenue, Melbourne, FL,	1-800-227-7415



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PROJECT POLICIES

The following policies must be followed as long as you are working on any project for H W Davis Construction, Inc:

SAFETY:

- A. At a minimum, all OSHA regulations must be followed.
- B. Shoes, long pants and shirts with sleeves must be worn at all times. Shoes must be approved as work shoes or boots. No soft-soled or tennis shoes. No tank tops, half tops or sleeveless shirts allowed. Shirt tails must be tucked in and long-sleeves buttoned.
- C. The jobsite is to be cleaned every day. If a Subcontractor/Sub-subcontractor fails to do so, HW Davis will complete the necessary clean-up and backcharge the Subcontractor accordingly. (Sub-subcontractor will not be backcharged by HW Davis)
- D. Proper grounding of all tools and cords is imperative.
- E. Report all accidents to the Field Superintendent as soon as they happen.
- F. Safety meetings will be held in conjunction with the weekly subcontractor meeting. It is the responsibility of each subcontractor to hold weekly safety meetings; if they do not, it is mandatory that all employees attend H W Davis' meeting.
- G. Any employee found to be using alcohol or drugs will be dismissed immediately.

PARKING:

- A. Park ONLY in areas designated for construction personnel. If in doubt, contact HWD Field Superintendent for directions.

OWNER'S REQUESTS:

- A. No employee is to be on the jobsite unless working.
- B. No radios. (Except as needed for emergency, i.e. weather, updates)
- C. Crude behavior will not be tolerated. No cat calls or obscene gestures. Employees are to be courteous to facility employees and guests at all times
- D. Dining facilities are to be used only at the discretion of Owner. Please do not use any facility without permission.
- E. Do not use any facility public toilets unless prior permission has been obtained and you have been designated to do so. Temporary construction restrooms will be designated.
- F. No smoking, dipping or chewing tobacco within the confines of the facility. Smoking in designated areas only.
- G. Do not borrow owner's tools or equipment without first contacting HWD Field Superintendent.
- H. Due to electromagnetic interference (EMI), cell phones and two-way radios must be turned off when in Critical Care Areas in hospitals. Restrict use to



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waiting rooms and non-patient care areas. Remember that EMI can affect any equipment containing computing power or is controlled by computers.

SITE ADMINISTRATION:

- A. The H.W. Davis Construction office is for official business only. It is not a meeting place or break room.
- B. Each major subcontractor is expected to provide their own communications. No personal calls will be allowed on HWD jobsite phone
- C. Meetings will be held weekly to discuss problems and solutions, and a representative from each major subcontractor is required to attend. HWD will notify all subs of the day and time.
- D. Unless notified otherwise, working hours will be 7:00 A.M. until 3:30 P.M.
- E. Employees are to place lunch or break trash in a receptacle. If litter becomes a problem, H.W. Davis will police the area and backcharge the offending subcontractors accordingly.
- F. You will be notified of weekly meetings with owner – architect- engineer in ample time to arrange for representation.
- G. A 72-hour notice in writing will be required for all tie-in shutdown work. Approval of such work must be confirmed before actual work is performed.
- H. Firearms and ammunition are not to be brought to the jobsite or onto Owner's property at any time excluding power hammers or other similar equipment

CONSTRUCTION SAFETY RULES

- A. All workers must use personal protective equipment at all times.
- B. Keep your work area clean. Store materials in an orderly manner. Keep area free of debris and trip hazards. Clean up daily.
- C. All power tools must be properly grounded or double insulated. Damaged cords must be replaced, not repaired.
- D. All power and hand tools must be used in a safe manner. Know the correct use of tools before using. Never remove safety guards or guides from tools and machinery.
- E. Eye protection must be worn when exposed to flying particles, chipping, sanding, sweeping.
- F. Ladders must be used safely. Do not use defective ladders. Inspect ladders for cracks and loose rungs. Don't over-extend yourself on ladders and scaffolds.
- G. Scaffolds must be erected on solid footing with guardrails installed when over 4 feet in height.
- H. Do not take down guardrails unless instructed by your supervisor.
- I. Only authorized personnel should operate equipment and motorized vehicles.
- J. Keep safe distance from live electrical wires.
- K. Report all injuries to H W Davis Field Superintendent immediately.



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- L. Report any unsafe conditions, equipment, tools or environmental non-compliances to H W Davis Construction. Be alert to these conditions at all times.
- M. No one shall knowingly be permitted or required to work while his ability or alertness is so impaired by fatigue, illness or other causes that it might, unnecessarily, expose him or others to injury or the environment to harm.
- N. Fighting, horseplay, wrestling or like activities are forbidden on the job and on Owner's property.
- O. Never throw materials or equipment from levels where personnel are working or walking below, (i.e., scaffolding, roofs, upper floors of buildings, ladders). When work is being performed where it is necessary, (such as demolition) a No Entry warning must be in place including safety barricades, danger signs and a designated safety watchman to ensure no one enters the area.
- P. No one is to operate equipment or use tools which have been tagged "DO NOT OPERATE" or "OUT OF ORDER" until required repairs have been made and said tag has been removed by an authorized person.