

TURNER CONSTRUCTION COMPANY					
SWBU					
AIR POLLUTION CONTROL PLAN	SEC 2, DOC 1	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-9

AIR POLLUTION CONTROL PLAN

1.0 PURPOSE

The purpose of this policy is to set forth instructions and establish requirements to prevent or minimize the release into the air of dust, vapors and smoke associated with onsite construction or build-out activities. These requirements have been established to help comply with; applicable federal, state, and local laws, regulations, standards and requirements; Turner Construction Company's Minimum Performance Standards (MPS); and project and site specific Turner Construction Company's standards and requirements. Where local or state regulations require more stringent or different controls, each project must incorporate those requirements into this plan.

2.0 APPLICABILITY

The Air Pollution Control Policy applies to all Turner Construction Company Subcontractors. Turner Construction Company is responsible for coordinating air pollution minimization and control efforts required by this guideline and for establishing systems with the site subcontractors to ensure communication of this guideline and compliance with its requirements.

Each contractor and subcontractor will be responsible for the prevention/reduction of air pollution associated with construction and build-out related activities that are contractually their responsibility.

Air pollutants include the presence in the ambient air generated within the onsite property boundary of dust, vapors, fumes, mist, gas, smoke, or odorous substances in sufficient quantities and having characteristics and duration that exceed or contribute to exceeding government laws, regulations and standards or that cause deterioration of the "quality of life" in neighboring properties.

The following are examples of construction related activities that potentially generate air pollution:

Site preparation and civil engineering work (dust): grubbing, clearing, scraping, excavating, piling and filling of earth materials; stock piles of earth materials and exposed earth areas.

Vehicular traffic (dust): exposed earth and gravel surfaces.

Soil treatment (chemical dust / spray / vapors): lime, pesticides, fungicides, dust suppressants, fertilizer.

Construction materials surface preparation and coating (aggregate/metal dust, chemical spray / vapors): sand / bead blasting, painting, epoxy coating, hot tar roofing, asphalt paving.

Mobile equipment (aggregate / chemical dust / spray / vapors): portable concrete batch plants, rock crushers, chippers, thermal treatment of debris and soils, tank vents, portable electrical generators.

Demolition (dust / asbestos / lead): removal of buildings, structures, pipes and tanks.

3.0 COMMUNICATION AND PLANNING

The following is a brief summary of the key elements, by construction activity, that must be addressed to prevent or reduce construction related air pollution in accordance with the applicable laws and regulations and requirements of Turner Construction Company and the General Contractor. Appendices A through F are provided as in-field checklists to ensure compliance with this plan.

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4.0 SITE PREPARATION AND VEHICULAR TRAFFIC

Site preparation and vehicular traffic requirements shall comply with local regulations pertaining to airborne particulate matter (PM10) and the SWPPP.

See Appendix A for Site Planning Activities Checklist
See Appendix B for Area Water Application Log Sheet

5.0 CONSTRUCTION MATERIAL SURFACE PREPARATION AND COATING

The construction of roads, buildings and other structures often requires the surfaces to be prepared prior to applying surface coatings. These activities, along with the surface coatings themselves, can result in the generation or release of air pollutants. In preparing the surfaces, sand or bead blasting is often used, which generates aggregate and metal dust particles. The application of surface coatings can generate fumes, vapors and strong odors (epoxy coatings, painting, hot tar roofing and asphalt paving). Key elements associated with these activities include the following:

Architectural coatings and Surface coatings must meet the requirements and Volatile Organic Compound (VOC) limits set forth in *South Coast Air Quality Management District Rules/ Air Pollution Control District County of San Diego and the Project Specifications*. Turner Construction Company must approve the specific material/chemical to be used for bead / shot / sand blasting, for coating or painting, and for any solvents associated with these activities prior to any of these materials arriving on the project site. All abrasive blasting shall be done using California Air Resources Board (ARB) approved blast media. Wet blasting shall be used where possible.

To prevent dust that is generated during abrasive blasting, or over spray from painting activities from traveling beyond the immediate work area, sheeting material should be used to separate the work area from the rest of the site.

Surface preparation and coating activities that is being performed outdoors and not within enclosed areas should not be performed during windy conditions. This depends on the activity being performed, the chemicals being used, strength of the wind, and the location and distance from the work area to the sensitive receptors (i.e., nearest residence, outside eating area, foot traffic areas).

See Appendix D for Surface Preparation and Coating Checklist

6.0 OTHER APPLICABLE PERMITS AND PLANS

Hazardous Material Control Plan
Hazardous Waste Management Plan
Solid Waste Management Plan
Pollution Prevention/Environmental Incident Response Plan

7.0 TRAINING

Turner Construction Company is responsible for establishing a communication program for applicable subcontractors to communicate the requirements of this guideline as well as the requirements, which are developed from site-specific air pollution control measures, such as the dust control plan.

Subcontractors are required to have their Competent Person completed the Storm water Sub Contractor Short Course (1 Hour) through Turner University (\$99.00) per course and submit completion certification to the Turner Safety Officer.

Self- Auditing:

Turner Construction Company should conduct site audits on a regular interval to ensure that pollution control requirements are being consistently met.

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**APPENDIX A
SITE PLANNING ACTIVITIES
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Identify whether the project will involve any activities that may generate significant amounts of air pollutants. Mark each activity identified below:

- Site preparation
- Vehicular traffic
- Construction material surface preparation & coating
- Mobile equipment
- Demolition
- (Other) _____
- _____
- _____

2. Determine what agency approvals, permits or notifications are required for any of the activities listed above.

3. Identify an owner for each permit and ensure required permits are obtained.

Permit _____ Owner _____

Application initiated _____ Application reviewed by: GC _____ Project Name/No _____

Application submitted _____ Permit Issued _____

Permit _____ Owner _____

Application initiated _____ Application reviewed by: GC _____ Project Name/No _____

Application submitted _____ Permit Issued _____

Permit _____ Owner _____

Application initiated _____ Application reviewed by: GC _____ Project Name/No _____

Application submitted _____ Permit Issued _____

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APPENDIX A

**SITE PLANNING ACTIVITIES
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Permit _____ Owner _____

Application initiated _____ Application reviewed by: GC _____ Project Name/Number _____

Application submitted _____ Permit Issued _____

Permit _____ Owner _____

Application initiated _____ Application reviewed by: GC _____ Project Name/Number _____

Application submitted _____ Permit Issued _____

4. Verify the necessary performance controls have been established, such as:

___ Indicators to monitor and demonstrate compliance with the wastewater management plan

___ Logbooks required to record inspections

___ Established inspection criteria with owner identified

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**APPENDIX B
AREA WATER APPLICATION LOG SHEET**

THIS LOG IS TO REMAIN IN THE CAB OF THE WATERING TRUCK AND BE AVAILABLE FOR AUDITING AT ALL TIMES. EACH TIME WATER IS APPLIED; THE WATER TRUCK DRIVER IS REQUIRED TO RECORD INFORMATION IN THE SPACES PROVIDED BELOW.

Date	Start Time	Stop Time	Area watered	Amount of water Used	Initials

WHEN ALL AVAILABLE SPACES ON THIS LOG SHEET HAVE BEEN COMPLETED, DELIVER THIS SHEET TO THE TURNER CONSTRUCTION COMPANY OFFICE AND START A NEW SHEET.

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**APPENDIX C
CHEMICAL APPLICATION CHECKLIST**

PRIOR TO THE SHIPMENT OF CHEMICALS TO THE SITE FOR APPLICATION, TURNER CONSTRUCTION COMPANY WILL VERIFY THAT:

- ___ 1. Turner Construction Company has approved the use of the chemical, as indicated by a Hazardous Material Information Sheet showing approval for this specific use of the chemical.
- ___ 2. If the chemical must be applied only by trained and licensed / permitted individuals, obtain a copy of the permit for each individual who will be applying the chemical and submit a copy to Turner Construction Company.

PRIOR TO APPLICATION OF ANY CHEMICALS BY TURNER CONSTRUCTION COMPANY OR ANY SUBCONTRACTOR, THE INDIVIDUAL APPLYING CHEMICALS WILL:

- ___ 1. Check wind speed and direction. The chemicals should not be applied when the wind is blowing. Depending on the direction of the wind, the distance to sensitive receptors (i.e., off site, people, plants and animals, or bodies of water) the method of application, the type of chemical being applied and the physical form of the chemical, chemicals should only be applied when there is no wind or when the winds are considered calm.
- ___ 2. Read and understand all instructions for the application of the chemical. The chemicals should not be applied at a rate greater than specified by the manufacturer, or as stated in the specification.
- ___ 3. Ensure area is clear of any personnel or animals that may be affected by the chemical per Manufacturer's instructions.

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**APPENDIX D
SURFACE PREPARATION AND COATING CHECKLIST**

PRIOR TO THE SHIPMENT OF CHEMICALS OR OTHER MATERIALS TO BE USED FOR SURFACE PREPARATION OR COATING TO THE SITE, TURNER CONSTRUCTION COMPANY WILL VERIFY:

___1. Turner Construction Company has approved the use of the chemical, as indicated by a Hazardous Material Information Sheet, showing approval for this specific use of the chemical.

PRIOR TO APPLICATION OF ANY CHEMICALS BY TURNER CONSTRUCTION COMPANY OR ANY SUBCONTRACTOR, THE INDIVIDUAL APPLYING CHEMICALS WILL:

- ___1. Ensure that sheeting material or other protective measures have been set in place to separate the work area from the rest of the site. Insure that this has been established in a manner to prevent dust that is generated during bead/sand blasting, or over spray from painting activities, from traveling beyond the immediate work area.

- ___2. Check wind speed and direction. Surface preparation and coating activities that are being performed outside and not within enclosed areas should not be performed during windy conditions. This depends on the activity being performed, the chemicals being used, strength of the wind, and the location and distance from the work area to the sensitive receptors (i.e., nearest residence, outside eating area, foot traffic areas).

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**APPENDIX E
MOBILE EQUIPMENT SETUP CHECKLIST**

(Mobile equipment such as portable concrete batch plants and rock crushers are required to have permits from either the state or local agency responsible for the air pollution control program.)

PRIOR TO SITE DELIVERY OF MOBILE EQUIPMENT WHICH REQUIRES EITHER STATE OR LOCAL PERMITS, THE SUBCONTRACTOR RESPONSIBLE FOR THE EQUIPMENT WILL:

- ___1. Obtain all required state and local permit(s) for use of the equipment.
- ___2. Provide Turner Construction with a copy of the permits required.

PRIOR TO SITE ARRIVAL OF MOBILE EQUIPMENT THAT REQUIRES EITHER STATE OR LOCAL PERMITS, TURNER CONSTRUCTION WILL:

- ___3. Obtain a copy of the permit(s) from the Subcontractor providing the equipment prior to allowing the equipment onto the project site.
- ___4. Independently contact the appropriate air pollution control agency to confirm that a permit is not required, if so stated by the Subcontractor, and to confirm the Subcontractor's compliance history.
- ___5. Identify equipment setup locations that will minimize the potential for air pollutants from the equipment to travel beyond (Project Name)'s property.
- ___6. Notify the subcontractor of equipment setup and operation areas.

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**APPENDIX F
DEMOLITION OPERATIONS CHECKLIST**

(The demolition of buildings, tanks, piping systems, etc. can often result in the release of air pollutants. Depending on the age of the building, the materials of construction could contain asbestos or lead-based paint. Depending on the chemicals [if any] used, the ductwork or pipes may contain residual chemicals of concern [i.e., arsenic in duct work, solvent or petroleum vapors in pipes]. Tanks [above, below and in-ground] also may contain materials which can release vapors or pose a potential hazardous situation when being removed.)

PRIOR TO STARTING ANY DEMOLITION WORK, **TURNER CONSTRUCTION COMPANY** OR SUBCONTRACTOR TO PERFORM THE WORK WILL:

- ___ 1. Determine the characteristics of the area to be demolished, including any chemical hazards and residues (e.g., lead, asbestos, fuel oil, hazardous chemicals, sludge).
- ___ 2. Determine if any state or local permits are required for demolition (e.g., asbestos removal, lead removal, removal/decommissioning of underground or above ground tanks).
- ___ 3. Insure that if permits are required, those permits have been obtained.

IF SAND / SHOT / BEAD BLASTING IS TO BE PERFORMED:

- ___ 1. Required control measures must be identified and put in place prior to starting work.

Sand / shot / bead blasting of metal (interior / exterior) tanks, heavy equipment and steel structures generates spent abrasive material and removed rust and paint chips. The paint being removed may contain lead, requiring that additional steps be taken to prevent the release of these materials into the atmosphere and onto the ground/surface waters. Prior to removal of any paint/primer, a determination needs to be made whether the materials to be removed contain lead.

IF DISMANTLING OR DISASSEMBLY OF TANKS, PIPES, PUMPS OR VALVES IS TO BE PERFORMED:

- ___ 1. Check for the presence of liquids, sludge or residues.
- ___ 2. Remove any liquid; sludge or residues identified, in accordance with Government, Owner and Contractor requirements, prior to demolition.

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AERIAL PLATFORM & MANLIFT POLICY

PURPOSE:

The purpose of this policy is to provide basic safety procedures for aerial lifts, with the intent of preparing workers to perform this type of work in the safest manner possible.

Aerial Work Platform (AWP) equipment has a primary fall protection system, the guardrails which surround the platform. Where necessary, secondary fall protection systems may be required by the manufacturer. **Some secondary fall protection systems are now mandatory (e.g. restraining harness and lanyard on lifts).**

Fall restraint shall be the primary objective over 'fall arrest.' PFAS should NEVER be used.

POLICY:

All aerial lift work shall be performed in full compliance with OSHA (1926.502(d) (16) (iii) standards and all other client, company or local regulations, policies, procedures and standard safe work practices. All Aerial lifts must have proof, on site, of current certifications and inspections

Aerial lifts shall be operated by qualified operators, designated in writing, on the operator qualification form. Qualification shall take into account past work history, training and prior licensing.

1. Only authorized, properly trained, qualified persons shall use or operate this equipment.
2. The operating and maintenance instruction manuals issued by the manufacturer must be followed.
3. Load limits of the boom and basket will not be exceeded. Shock loading (sudden stops or starts) of the equipment shall be averted.
4. Aerial lifts shall not be "field modified" unless the modifications are certified by the manufacturer. The insulated portion must not be altered in any manner that might reduce its insulating value.
5. Prior to use, the equipment shall be given a warm up period. The hydraulic system and the lift controls shall be checked and tested daily before use to positively determine that such features are in safe operable working condition. Malfunctions or

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unsafe operational conditions will be reported. Equipment, which is not in proper operational condition, will not be used.

6. The contractor is required to complete a daily inspection sheet for all powered lift trucks and mobile elevated work platforms. The inspection includes operational and physical parameters for operation of the equipment being inspected. The inspection form must be posted in a visible location during operations and a copy made available to Turner upon request. An inspection form is available from Turner.

7. Lower level controls will not be operated unless permission has been obtained from the employee in the lift, except in the case of an emergency only. Ground controls shall be positive override.

8. The truck shall not be moved unless the boom is lowered, the basket cradled and secured, and the outriggers retracted.

9. Employees shall not ride in the bucket while the truck is traveling.

10. When employees are in the bucket of an aerial lift, the emergency brake of the vehicle must be set. Wheel chocks or outriggers shall be used to provide added protection. When the vehicle is on an incline, wheel chocks shall be used regardless of whether or not outriggers are used. The truck should sit approximately level when viewed from the rear.

11. When outriggers are used, they must be set on a solid surface, or on pads.

12. Employees shall not belt to an adjacent pole or structure. When working from an aerial lift, a harness will be worn with a lanyard attached to the boom.

13. Safety rules governing the use of hot-one tools, rubber goods, personal protective equipment, and general safe practices shall also apply to work done from aerial baskets. (Exception: Performing "live-line barehand" work.)

14. When a boom must be maneuvered on a street or highway, all of the necessary precautions shall be taken to eliminate accidents with traffic and pedestrians.

15. The operator must always face in the direction in which the basket is moving and he must be able to see that the path of the boom or basket is clear when it is being moved.

16. Employees shall not stand or sit on top of the edge of the basket or on ladders placed in the basket. Employees' feet shall be on the floor the entire time that he/she is in the basket.

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17. Employees shall not wear climbers while in the basket.

18. When two workers are in the basket(s), one of them shall be designated to operate the controls. One employee shall give all signals, which shall be thoroughly understood by all persons concerned.

19. When two workers are working from the basket, care shall be taken to eliminate one man contacting poles, cross arms, or other grounded or live equipment while the second line worker is working on equipment at a different potential.

20. All aerial devices shall be equipped with suitable flashing warning lights.

21. All controls must have protective guards to prevent accidental operation of the controls.

22. Periodic electrical tests shall be made of the boom insulation and aerial basket liners.

23. Equipment or material shall not be passed between a pole or structure and an aerial lift while an employee working from the basket is within reaching distance of unprotected, energized conductors or equipment.

24. When used near energized conductors or equipment, vehicles shall be properly grounded or barricaded.

Ground crews must not touch the vehicle until it is safely clear of energized conductors.

25. Field modifications are not allowed on aerial lifts.

26. Only authorized and trained individuals may operate aerial lifts.

27. When a lift is delivered to the project, the rental company or the owner of the lift shall inspect the lift & provide documentation the lift is safe to operate onsite.

28. The lift shall be free from any physical defects in new or like new condition with all the safety placards present.

29. Employees must never use personal fall arrest systems (PFAS) when working from articulating boom platforms.

30. When working from a scissor lift, the use of fall restrain in conjunction with the guardrails is required.

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31. Employees must keep both feet on the floor of the basket and not stand on the railing or toe board during operation.

32. If operating in congested areas, MEWP's will require spotters. The spotters will be responsible for ensuring that the area around the MEWP and the travel path are free of obstruction and clear of equipment and personnel.

33. Man baskets such as those utilized from fork truck type vehicles are not allowed on Turner projects.

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BARRICADE PLAN

PURPOSE:

The purpose of this policy is to provide employees with an awareness of the different types of barricades and to prevent unauthorized personnel or equipment from entering a barricaded area.

This policy covers the set up and maintenance of barricades on the jobsite that will restrict entry and/or provide warning for areas that involve construction activity contain safety hazards, abnormal conditions, or in which unusual operations are being performed.

POLICY:

There are various types of barricades used in the workplace for many different purposes, some are permanent or temporary fixed, such as walls, fences and staging poles. Some are temporary such as tape, cones, rope and chain. Barricade tape is the most common type of barricade we utilize and the main subject of this policy, although it applies to any type of barricade Turner Construction and Trade Partners/Subcontractors may install.

All work areas where a hazard exists or may exist as the result of maintenance, construction, x-raying, hazardous material release, equipment failure, weather or any other emergency or unsafe condition shall be barricaded. Signs and barricade tape only provide a warning of a potential unsafe or hazardous condition. Whenever physical restraint is required, guardrails or other fixed devices shall be installed.

Barricades are often violated without regard for the reason they were installed. This endangers not only the person(s) violating the barricade, but also those with assigned tasks within the barricaded area. Therefore, barricaded areas shall have a completed Trade Partners/Subcontractors barricade tag attached. Only personnel with assigned tasks inside a barricaded area shall enter; all others must receive permission from the person in charge.

To promote safety and efficiency, the following procedure applies whenever barricades are installed:

PROCEDURE:

Barricade Types:

1. Warning – These call attention to the hazard, but offer no physical protection. There are various types of warning barricades that could be used on a job site, as follows:

- **Yellow and Black – Warning** (barricade tag required)

Caution signs, indicating what the hazard is, may or may not be needed with this barricade. Employees should exercise caution when determining the hazard involved upon entering an area barricaded in yellow. An example of its use would

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be an area where employees are performing overhead work, which could be hazardous to employees working below.

- **Red and Black or Red – Danger** (barricade tag required)

This color will be used to prohibit entry or passage through an area by all employees, except those authorized to do so. Careful job planning is required to use this color so as to assure its effectiveness. Turner Construction and Trade Partners/Subcontractors and other personnel must not cross a RED Barricade without authorization from the supervisor responsible for the job activity.

Red barricade tape should be used only when conditions are of an imminent danger or hazards may potentially become life threatening or of a debilitating nature.

Turner's red barricade tape policy is:

"Red and Black or Red – Danger (barricade tag required), in the event there is no tag we still must not lift the tape and go inside. This color is used to prohibit the entry of anyone except those who are authorized to be inside that containment.

We must get the attention of the authorized parties for entry and escort throughout that area; they know where the hazards are." Proper signage should accompany the tape identifying the hazard if possible, who the authorized person is to gain entry and how to contact them.

Circumventing this policy is considered a serious violation and should not be taken lightly.

There are no double standards; we must all comply with our policies as well as federal/state regulations.

- **Yellow and Magenta – Radiography (X-Ray)**

This barricade is used to mark the area in which radiography is being conducted. Employees are not to cross or alter this barricade tape under any circumstances. Exposure to X-Rays may cause health problems. Since X-Rays cannot be detected by the sense of smell, touch, hearing or sight, it is critical that this barricade is not crossed.

- Other types of barricades, such as orange plastic fences, red paint stripes, cones and wooden sawhorses may be used by Trade Partners/Subcontractors.

2. Protective - Protective barricades provide physical protection, and should be made from structurally sound materials such as wood, pipe or scaffold members. All posts should be set in the ground or anchored, and be capable of withstanding 200 lbs. of force applied in any direction, with minimum deflection. Typically these barricades should be constructed along walkways, roadways and around pits and certain

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excavations. These should be painted or use barricade tape, as outlined in the prior section.

3. Special Barricades - Certain work activities require special barricading that identifies the potential hazard associated with the work being performed. Listed below are some examples:

- Asbestos
- Benzene
- Lead

4. Placement of Barricades and Barricade Tape

All barricades are to be placed as follows:

- Erected and tagged prior to actual work beginning, to avoid leaving an area unprotected.
- Marked with lights at night if they are located in walkways or roadways.
- The crew beginning the work is responsible for erecting the barricade around the work area. All Turner Construction Trade Partners/Subcontractors employees working inside the barricaded area are responsible for maintaining it.
- Barricades should be about 42" high. Tape should be tied to substantial building parts, pipe stations and other fixed structures, not to instrument lines, valves, process equipment, etc.
- Barricades shall not be used to block fire doors or their access
- Whenever a barricade is installed, a Turner Construction Trade Partners/Subcontractors Barricade Tag must be completely filled out and attached to the barricade in a readily visible location. A client supplied Barricade Tag may also be used for this purpose.
- Tags can be obtained from a supervisor or the tool room.
- When a large area is barricaded, a completed barricade tag will be attached in multiple locations to prevent unauthorized entry.
- The barricade shall be removed when no longer needed. The barricade is to be removed only with the permission of the person who erected it or the Turner Superintendent/Safety Manager.

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CODE OF SAFE WORK PRACTICES

Any person not directly involved with the on-site construction of this Project shall first proceed to Turner Construction Company Project Office to obtain permission to enter the site. They will sign a visitor / vendor release, and obtain a visitor's badge, if applicable. Hard Hat, safety glasses, gloves, long pants, shirts with sleeves and hard sole work boots are required for access to the construction site.

Basic Principles of the Project Safety and Health Program:

1. All Project employees shall comply with Turner requirements, as well as their company's Safety Program and all Federal, State, and Local Codes and Regulations.
2. All Subcontractors shall submit their Company's Safety Program in writing to the Project Superintendent prior to the start of work. As a minimum, the Subcontractor's Safety and Health Program shall incorporate all the requirements of CCR Title 8, Subchapter 4 (Construction Safety Orders), Section 1509 and shall address how the Subcontractor intends to implement for the prevention of incidents to their employees, fellow workers, the general public, and property of all concerned. All subcontractors shall ensure that their employees are trained in, and agree to comply with, Turner Construction Company minimum requirements.
3. Each Subcontractor shall ensure that their Subcontractors and suppliers, regardless of tier, shall comply with Turner Construction Company's safety requirements, the Subcontractor's Company Safety Program and all Federal, State, and Local Codes and Regulations.
4. All costs to Turner Construction Company of Federal, State, and Local citations, fines, penalties, or summons resulting from the Subcontractor's operations shall be back charged to the Subcontractor and will include administrative fees.
5. Each Subcontractor shall have a scheduled inspection and maintenance program for all tools and equipment.
6. Each Subcontractor shall have at least one (1) qualified CPR/ first-aid person on the Project at all times. The name(s) of this individual and his/her date of certification shall be submitted to the Project Superintendent or designee at the start of their work. Any change shall be noted in the weekly Toolbox Talk Meeting Minutes.

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7. All Subcontractors are required to comply with Turner Construction's 30 Hour OSHA Outreach Training Policy.
8. Each Subcontractor shall supply cool drinking water and disposable cups for their employees, per CCR Title 8, Section 1524.
9. Each Project office shall be equipped with a copy of the CAL/OSHA Construction Standards, Turner Construction Company Safety Program, Sub-Contractors Safety Program, Hazard Communication Program and 20lb ABC Fire Extinguisher.
10. **Aluminum ladders** of any type and painted wooden ladders shall **not** be permitted on this Project.
11. Alcoholic beverages as well as illegal drugs shall **not** be allowed on any Turner project.
12. Radios of any type shall **not** be allowed on any Turner Project. (Except for project communication)
13. All persons shall follow these safe practice rules, render every possible aid to safe operations, and report all unsafe conditions or practices to managers or supervisors.
14. Managers and supervisors shall insist on employees observing and obeying every rule, regulation, and order as necessary to the safe conduct of the work, and shall take such action as is necessary to obtain observance.
15. All employees shall be given frequent injury and illness prevention instructions.
16. Anyone known to be under the influence of drugs or intoxicating substances which impair the employee's ability to safely perform his/her assigned duties shall not be allowed on the job while in that condition.
17. Running, jumping, horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or wellbeing of the employees shall be prohibited.
18. Work shall be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.

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19. Employees shall be instructed to ensure that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to the manager or supervisor.
20. Employees shall not enter underground vaults, chambers, tanks, manholes, silos, or other similar confined places that receive little ventilation, unless it has been determined that it is safe to enter.
21. Employees shall not handle or tamper with any electrical equipment, machinery, or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their supervisor or manager. Respect electricity under all circumstances. Never use electrical equipment in areas of excessive moisture unless all safeguards have been taken. Electric power tools are grounded thru approved cords, including extension, for your safety. Never remove or alter polarized cords or plugs.
22. When lifting heavy objects, the large muscles of the leg instead of the smaller muscles of the back shall be used. Learn and practice the proper way to lift or carry materials or any object. Do not operate any type of powered material handling or hoisting equipment unless you have been trained and authorized. **Get help in handling heavy or bulky loads; no one is to lift anything that weighs more than 50 pounds.**
23. Stay clear of heavy earthmoving equipment. Remain aware of warning devices such as bells, horns, or whistles. Hard hats, gloves, safety glasses, are mandatory; always wear them while working in the construction zones. Use other protective gear as recommended when exposed to unusual hazards. Never attempt an operation with which you are not familiar, ask first for specific instructions. Wear suitable work clothes at all times, heavy soled work boots to protect against puncture injuries.
24. Basic first aid is of value in the event of injury. Know how, it may save a fellow worker from death. Never attempt to move a person who may possibly suffer from an injured spine or other internal injury unless proper methods are completely understood. All injuries shall be reported immediately to Turner Construction, your manager or supervisor so that arrangements can be made for medical or first aid treatment.
25. Accident Prevention: All workers must abide by Cal/Osha Construction Safety Orders; General Industry Safety Orders and Turner Construction policies and procedures. Posters and other safety materials are displayed for the benefit of every worker, read and abide by these suggestions. Give every possible aid in the event of an injury.

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26. Accident Reporting; Report all personal injuries to Turner Construction and your manager supervisor immediately. Obtain authorization for any work related injury from Turner Construction, your manager /supervisor. A medical release is necessary before returning to work.
27. Job Site: Keep work areas free of debris, good housekeeping is **essential**. **"Nothing Hits the Ground"** Remove or correct any hazards immediately. Never work or pass under suspended loads or equipment.
28. Work Habits: Assist other trades when necessary to maintain operations. Never place yourself, or allow others to work in a dangerous environment. Use the right tool or equipment for all work. Use of any alcohol beverage is strictly prohibited on the job. Never be party to horseplay, pranks can be fatal. Construction sites offer unusual hazards, walk and work with all due respect them.
29. Hand Tools: Always use the proper tool and maintain them in good condition at all times. Loose or broken handles, mushroom heads, dull cracked blades , improper size or type of tool shall never be used.
30. Power Tools: Power activated tools must only be used by trained personnel. Know the proper method of using, a skill saw; never block back the retractable guard it is for your protection. Never use a tool with which you are not fully experienced with.
31. Protective Devices: Hand or guardrails, protective covers, toe-boards, ramps and safety devises installed on various tools are for your safety. Do not tamper with, remove or damage these protective measures. Report, replace, correct any unsafe guard or devise immediately to Turner Construction, your manager /supervisor.
32. Transportation: Riding in the bed of a pickup is **PROHIBITED**. Be careful of any tools, materials or equipment within the truck body which may shift or slide causing injury.
33. Flammables, Solvents: Never use gasoline or other highly volatile liquids for cleaning purposes. Oxygen and acetylene cylinders can be dangerous, secure against rolling or tipping. Never store inside a building and separate them a minimum of 20 feet apart. Do not expose tanks or container that may contain explosive vapor or liquid to open flame or spark.

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COMPRESSED GAS CYCLINDERS

- Compressed gas cyclinders shall be secured in an upright position at all times. Location of cyclinder storage areas must be approved by a Turner Construction Superintendent or Safety Manager.
- When transporting, moving and storing cyclinders, valve protection caps shall be in place and secured.
- Cyclinders shall not be hoisted by magnets or choker slings. Valve protection caps shall not be used for hoisting cyclinders.
- Cyclinders shall be kept away from sparks, hot slag and flames, or be adequately protected.
- Cyclinders shall not be placed where they can become part of an electrical circuit.
- Cyclinders shall be labeled as to the nature of their contents.
- Oxygen cyclinders in storage shall be separated from fuel gas cyclinders or combustible materials a minimum of 20 feet, or by a non-combustible barrier at least 5 feet high having a fire resistant rating of at least one-half hour and empty cyclinders shall be separated as above from full cyclinders and stored with like cyclinders.
- "No Smoking" signs shall be posted at storage areas and signs shall clearly indicate contents of cyclinders.
- Anti-flash back valves shall be provided on all oxygen and acetylene lines. Flashback arrestors must be installed at the torch head and at the regulators and used according to manufacturer's recommendations. Under these circumstances, the arrestors are designed to stop the backflow (reverse flow) of unwanted gas and/or flashback into the upstream equipment.
- The employer must instruct the employee in the safe use of fuel gas.

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- Before a regulator is connected to a cylinder valve, the valve must be opened slightly and closed immediately. This “cracking” of the valve must be done each time before a regulator is connected.
- Flashback arrestors must be routinely inspected, per manufacturer’s recommendations.
- All hoses must be routinely inspected, per manufacturer’s recommendations. Specific issues include cracking and dry rot.
- Oxygen and fuel gas pressure regulators must be in proper working order, per manufacturer’s recommendations, while in use.
- The regulators & gauges must be removed from the cylinders at the end of each shift.

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CONFINED SPACE & EVACUATION POLICY

According to the National Institute of Occupational Safety and Health (NIOSH) the definition of a confined space is one, which by design has limited openings for entry and exits, and unfavorable natural ventilation, which could contain or produce dangerous air contaminants. In construction, we create many temporary confined spaces by operating in areas prior to the permanent ventilation systems being installed. We increase the possibility of hazardous conditions with winter weather protection. Hazardous confined spaces are divided into three categories.

1. Lack of Oxygen:

Normal air is 21% oxygen by volume. Should the percentage drop to near 17%, drowsiness and impaired ability to think clearly occur. Anything below 12% causes unconsciousness and is usually fatal.

2. Combustible or Explosive:

Combustible and Flammable contaminants in a confined space creates the possibility of fire or explosion. Heat, static electricity, etc. may cause an ignition. Many gases are heavier than air and collect in the bottom of the pits, trenches, sewers and rooms. Dust too can be explosive. Many operations, particularly cutting and welding, create hazards in confined spaces since the use of any combustible or explosive chemicals in a confined space allows the build up of dust and vapor.

3. Toxic Atmosphere:

Workers must be aware of the dangers of toxic substances in storage tanks; the less obvious are the toxic situations you might find in construction. Toxic chemicals can be brought into confined spaces. Welding, cutting, painting, etc. can raise the level of chemicals in a confined space to hazardous levels. We must recognize that confined space hazards exist in construction and are not a problem until we introduce the human element.

Confined spaces are not dangerous when appropriate measures are taken. All workers entering and working around confined spaces must be trained and aware of the hazards associated with this type of work.

Types of Confined Spaces:

There are Two (2) types of confined space:

1. Non-Permit Confined Space

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- a) Has a limited means of access and egress,
- b) Large enough and configured in such a manner that an employee can enter and perform work,
- c) Is not designed for continuous occupancy,
- d) Does not pose a health or safety risk as described in permit required confined space

Examples include but are not limited to non-energized HVAC equipment, and certain trenches and excavations. The "competent person" in charge of the work who is familiar with the standards related to confined space must evaluate these conditions.

2. Permit-Required Confined Space

- a) Permit-Required Confined Space contains or has the potential to contain hazardous atmospheres,
- b) Contains materials that have the potential for engulfing an entrant,
- c) Has internal configuration that could trap or asphyxiate the entrant,
- d) Contains other recognized safety or health hazards,

Examples of this type of space include but are not limited to: caissons, tanks, vessels and underground piping and tunneling.

It is Turner Construction Company's policy to review and audit the confined space programs and operations of its subcontractors who are required to utilize a confined space program in their work.

Turner Construction Company Requirements

Turner Construction Company Project Supervisory Responsibilities

1. Identify the confined space.
2. Coordinate for shut off, lockout/tag out all energy sources and mechanical hazards.
3. Verify ventilation or engineering controls of the confined space.
4. Obtain test results of the atmosphere from the Subcontractor.
5. Verify rescue and fall protection requirements are being utilized.
6. Approval by the Business Unit Safety Director is required prior to any Turner Construction Company employee entering into a permit-required confined space. Upon approval the Turner Construction Company employee shall comply with the requirements of the Subcontractor's program including all medical/respiratory requirements stipulated.

NOTE: Pre-planning is critical prior to any confined space task that may be performed.

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Subcontractor Project Supervisory Responsibilities

1. Coordinate and pre-plan work with Turner Construction Company project staff for all confined space operations.
2. Inform the Turner Construction Company Site Superintendent of the competent person designated for the work.
3. Submit the company's Confined Space program to the Turner Construction Company Site Superintendent for review and comment.
4. Atmosphere testing at start of work and after a distinctive break (i.e., lunch break).
5. Coordinate for local rescue teams services and confirm they are trained in confined space entry/rescue.
6. Have on site retrieval system, fall protection, perimeter protection, signage and personal protective equipment necessary for working in a confined space.
7. Mechanical and alternate means of evacuating the employee from a confined space.

Training:

Entrants, attendants, rescuers and entry supervisors must be trained prior to performing any duties relating to permit-required confined space.

Although Turner Construction Company is responsible for the quality control aspects of the work, this can be delegated to the Subcontractor through several means. Placing a Turner Construction Company employee into a permit-required confined space is a last choice option and must be reviewed by the Business Unit Safety Director or designee prior to implementation.

Any Turner Construction Company employee who has been designated to enter into a permitted confined space shall have already completed the required training for confined space entry. This training could have been instructed by an outside source through the direction of the Turner Construction Company or by means of training within the Turner Construction Company.

Record keeping:

Copies of all atmosphere testing, entry logs, training, Subcontractors confined space program and any medical records shall be kept in the Turner Construction Company Safety File and placed in records management at the end of the project. All medical information regarding Turner Construction Company employees shall be forwarded to the Business Unit Personnel Manager to be placed in the employee personnel file.

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Work in Confined Spaces (additional information):

1. No work shall be permitted in a confined space (manholes, pits, tanks, ducts, etc.) until it has been determined that the atmosphere is free of hazardous concentrations of flammable or toxic vapors and contains a minimum 19.5% oxygen. Tests shall be conducted at regular intervals as determined by the competent person and associated confined space regulations prior to each entry and during the work,
2. Where the atmosphere in a confined space has been found to be hazardous, no entry shall be made until the area has been thoroughly vented and found to be safe on re-testing.
3. When it is necessary to enter a confined space that contains a hazardous concentration, the contractor must use a procedure that satisfies the requirements specified in Subpart (I) 1910.146 and Subpart (C), 1926.21 of Federal OSHA Standards. This includes the use of approved respiratory protection, lifelines, and stand-by personnel.
4. Confined entry test logs shall be maintained at the work location and copies shall be provided to Turner Construction Company.

Excavation and Trenching

Excavations and trenching statically remain one of construction's most hazardous activities.

This program provides guidelines to ensure the safety of all workers who are required to work in and/or around an excavation and to provide guidelines for locating existing underground utilities.

The competent person in charge of the excavation work ensures that:

1. All preparatory work is conducted as described in this program before any excavation work begins.
2. Excavation and trenching work is performed within the guidelines of this program.
3. Soil Classification is performed before employees are allowed in the excavation.

Competent Person: One who is capable of identifying existing and predicable hazards in the surroundings, or working conditions which are unsanitary, hazardous,

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or dangerous to employees, and who has the authority to take prompt corrective measures.

Soil Classification:

Soil classification: A recognized method of categorizing soils and/or rock into categories.

Type (A) Soil

Type (A) Soil: Cohesive soil with an unconfined compressive strength of 1.5 tons per square foot or greater.

Examples of cohesive soils are clay, silty clay, sandy clay, clay loam, in some cases silty clay loam and sandy clay loam. Cemented soils such as Caliché and hardpan can also be considered Type (A).

Soil cannot be classified as Type (A) if the soil is fissured, or subject to vibration from heavy vehicular traffic, pile driving, or similar effects, or the soil has been previously disturbed.

Type (B) Soil

Type (B) Soil: Cohesive soils with an unconfined compressive strength greater than 0.5 but less than 1.5 tons per square foot.

Examples of Type (B) Soils are granular cohesion less soils including angular gravel (similar to crushed rock), silt, Silt loam, and in some cases, silty clay loam and sandy clay loam. Included also are previously disturbed soils except those, which would otherwise be classified as Type (C) Soil and soil that meets the unconfined compressive strength or cementation requirements for Type (A) Soil, but is fissured or subject to vibration, or dry that is not stable.

Type (C) Soil

Type (C) Soil: Soil with an unconfined compressive strength of 0.5 tons per square foot or less.

Examples of Type (C) Soil are: granular soils including gravel, sand, loamy sand, or submerged soil or rock previously disturbed.

Unclassified soil will be sloped at 1 ½: 1 (horizontal to vertical) or shored when the excavation exceeds four (4) feet in depth.

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Surface Encumbrance:

All surface encumbrance that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard workers in excavation.

Underground Installations:

The estimated location of utility installations such as sewer, telephone, fuel, electric, water lines or any other underground installations that reasonably may be expected to be encountered during excavation work shall be determined prior to opening an excavation.

Utilities companies, Owners or Dig Alert shall be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installation prior to the start of work. When utility companies, Owners or Dig Alert cannot respond to a request to locate underground installation within twenty (24) hours (unless longer is required by state or local law), or cannot establish the exact locations of these installations, the employer may proceed, provided the employer does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used. A current Dig Alert or USA number shall be maintained for the duration of excavation activities. Notifications shall be updated as necessary.

When excavation operations approach the estimated location of an underground installation, the exact location of the installation shall be determined by a safe and acceptable means.

While the excavation is open, underground utilities shall be protected, supported or removed as necessary to safe guard employees.

Requirements:

The competent person responsible for the excavation must be on site during all operations relating to the open excavation.

A competent person shall make soil classification and require an engineering review as needed.

For excavations over twenty (20) feet in depth or greater, all shoring, sloping, benching or any other protective means must be designed by a Registered Professional Engineer. A sketch or drawing, bearing the Engineer's stamp, shall be available on site.

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All excavation material and stockpile material must be placed a minimum two (2) feet away from the edge of the excavation. Loose soil or rocks shall be removed from the side of the excavation walls and placed in a manner that the material does not have the potential to roll or become accidentally knocked back into the excavation.

Excavations four (4) feet in depth or greater must have a stairway, ladder, ramp or other safe and equivalent means of access and egress within twenty-five (25) feet of any employee working inside of the excavation.

The subcontractor competent person shall inspect all excavations prior to entry:

1. At the start of each shift
2. After rain showers or heavy rains
3. After freezing and/or thawing temperatures occur
4. After any condition that can cause change to the integrity of the soil

For all excavation four (4) feet in depth or greater where hazardous material may exist, the atmosphere in the excavation must be tested. Refer to the Permit-Required Confined Space portion of the manual.

The competent person responsible for the crew working in the excavation must inspect the excavation throughout the course of the work shift, even if there has not been observed environmental changes. Operations shall stop upon observation of any suspected unsafe conditions.

The number of workers in the excavation shall be limited to the number needed to perform work.

Water shall not be allowed to accumulate in the excavation at any time. Pumps, drains or other means shall be used to remove water on a continuous basis or as needed.

Stability of adjacent structures shall be evaluated before starting an excavation and monitored daily thereafter.

Emergency rescue equipment shall be readily available during all work activities.

No employee shall be permitted underneath loads handled by lifting or excavating equipment.

Handrails and toe boards shall be maintained when required for fall protection.

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Cranes, Derricks, Hoists, Elevators and Conveyors

I. Policy Statement

Each contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart N, Subpart CC – Cranes, Derricks, Hoists, Elevators and Conveyors, in addition to the following guidelines.

II. Procedures

1) General Requirements

- a) No crane or hoist shall be placed in service on a Turner project until an annual, third party inspection and supplemental reports are submitted to Turner indicating that the crane or hoist meets the manufacturer's inspection criteria.
- b) A daily crane inspection, performed by the competent person, is to be documented and those reports are to be given to Turner when requested.
- c) Any crane that is altered, "jumped", or modified in a similar manner onsite must be re-inspected by an independent third party inspection company to ensure proper calibration and function.
- d) If the manufacturer's inspection criterion does not exist, a structural engineer, familiar with crane or hoist's design and dynamics, may develop or use existing inspection criteria.
- e) Turner requires that all crane operators be certified by an independent testing agency approved by the National Commission for the Certification of Crane Operators. (NCCCO). Copies of their certifications must be submitted to Turner. In addition, verification of hours operation the specific type of crane must be submitted to TCCO supervision prior to operation.
- f) Any lift exceeding 75% of the cranes rated capacity or lifts involving two or more cranes shall be considered a critical lift. A critical lift plan must be submitted to TCCO supervision for review prior to the lift. A sample plan and checklist has been linked to this document.
- g) A pre-planning meeting to discuss the critical lift will be held in the field with the crew to discuss, at a minimum, the following: calculation of gross weight load, load chart calculations, radius measurements anticipated during the lift, weather and soil conditions and overhead high voltage power line clearances. Calculations for the lift are to be reviewed during this meeting.
- h) Mobile crane movement on site must be in accordance with manufacturer's recommendations.
- i) At 20 mph, crane operations need to be evaluated by the competent person regarding the safe operation of the crane & the task associated with the crane. The crane shall not

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operate outside its wind limitations as stated in the operator's manual.

- j) The swing radius of cranes must be properly barricaded at all times while working on site. Tape is not an acceptable barrier.
 - k) Outrigger pads should be at least 3 times the dimensions of the crane floats. The outrigger pads are to be pre-manufactured. The weight must be determined prior to lifting the load.
 - l) Wire rope, its attachments, fittings, sheaves and safety devices must be inspected according to the manufacturer's recommendations. Copies of the inspections must be submitted to Turner.
 - m) Wedge sockets and fittings must be the proper size to match the wire rope and must move to hold the wire rope under load. The dead end must be terminated according to ANSI B30.5 and must not be attached, in any manner, to the live side of the load line.
 - n) An anti two-block or warning device is required on all cranes as specified in ANSI B30.5 for each load hoisting line. This requirement may be waived by the BUSD for certain cycle duty crane operations such as pile driving and drilling rigs.
 - o) A qualified rigger (by a national recognized organization) must inspect the rigging prior to each shift.
 - p) All windows in cabs must be safety glass that produces no visible distortion that will interfere with the safe operation of the machine.
 - q) Cranes, hoists, boom trucks and derricks shall not be installed or operated within 20' of a power line unless they follow 1926.1408 (a) (2).
 - r) Assembly/disassembly must be directed by a person who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons ("A/D director"). See 1926.1404
 - s) Before commencing assembly/disassembly operations, the A/D director must ensure that the crew members understand all of the following
 - 1. Their tasks,
 - 2. The hazards associated with their tasks.
 - 3. The hazardous positions/locations that they need to avoid.
- 2) Crane Suspended Personnel Platforms
- a) The use of a crane suspended personnel platform is prohibited on Turner projects unless the employer can demonstrate that conventional methods to do the work are more hazardous. The BUSD shall be notified of each request.
 - b) Specific crane operational criteria, listed in 29 CFR 1926, Subpart N, must be followed if it is determined that a suspended personnel platform will be used. The criteria includes, but is not limited to, the following:

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- Crane configuration requirements and inspections,
- Additional crane instrumentation and/or components,
- Specific platform design, construction and loading requirements,
- Specific rigging and trial lift guidelines.

3) Material and Personnel Hoists

a) Material Hoists

- All entrances to hoists must be protected by substantial gates or bars, which guard the full width of the landing entrance.
- Operating rules must be posted at the operator's station along with the notice "No Riders Allowed".

b) Personnel Hoists

- Hoist way doors or gates shall be at least 6'6" high and shall have a mechanical lock, which cannot be operated from the landing side.
- All entrances to hoists must be protected by substantial gates or bars, which guard the full width of the landing entrance.
- Hoists shall be inspected on a weekly basis. Hoists shall also be inspected after exposure to winds exceeding 35mph.
- All hoists shall be inspected and tested at not more than three-month intervals.
- All hoists shall have a "No Smoking" sign posted in the car and a fully charge fire extinguisher available for use

4) Controlling Contractor

a. Ensure that ground preparations necessary to meet the requirements. The equipment must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met. The requirement for the ground to be drained does not apply to marshes/wetlands. "Ground conditions" means the ability of the ground to support the equipment (including slope, compaction, and firmness).

b. Inform the user of the equipment and the operator of the location of hazards beneath the equipment set-up area (such as voids, tanks, utilities) if those hazards are identified in documents (such as site drawings, as-built drawings, and soil analyses) that are in the possession of the controlling entity (whether at the site or off-site) or the hazards are otherwise known to that controlling entity.

c. If the A/D director or the operator determines that ground conditions do not meet the requirements in paragraph (a) of this section, that person's employer must have a discussion with the controlling entity regarding the ground preparations that are needed so that, with the use of suitable supporting materials/devices (if necessary), the requirements in paragraph (a) of this section can be met.

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5) Signal Person Qualifications

- a. Know and understand the type of signals used. If hand signals are used, the signal person must know and understand the Standard Method for hand signals.

- b. The employer must make the documentation for whichever option is used available (Third party qualified evaluator or Employer's qualified evaluator) at the site while the signal person is employed by the employer. The documentation must specify each type of signaling (e.g. hand signals, radio signals, etc.) for which the signal person meets the requirements

- c. Please refer to 1926.1428 for reference.

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Crane Critical Lift Plan

1. **This plan is to be followed if any of the following apply (check where applicable):**
 - A. Load capacity is equal to, or exceeds 75% of load chart rating _____
 - B. 2 or more cranes will be used during lift _____
 - C. Any unusual circumstances _____ Specify _____

2. **Crane description:** _____

3. **Load Description:** _____

4. **Load Weight:** Specify how the weight was determined and by whom: _____

5. **Description and weight of rigging and attachments:**
 - A. Weight: _____
 - B. Description: _____

 - C. Weight determined by whom and how: _____

6. **Total weight of Load/Rigging/Attachments/Load Chart Deductions:** _____

7. **Equipment:**
 - A. Maximum operating radius: _____
 - B. Planned operating radius: _____
 - C. Allowable load from crane load chart: _____
 - D. Ratio of lift to allowable load (actual total load from line 5 divided by allowable load from chart): _____

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8. Clearance:

- A. Clearance between boom and lift: _____
- B. Clearance to surrounding objects: _____
- C. Clearance for load movement sufficient: _____

9. Stability of Ground:

- A. Is the ground compact & stable: _____
- B. Are mats required: _____
- C. Outriggers in place and blocking used: _____
- D. Verify that the weight of the crane and units to be lifted are structurally supported by the public way: _____

10. Is a lift drawing required for this lift (if so, attach): _____

11. What type of communication will be used by operator and signal man: _____

12. What are wind and weather conditions? _____

- A. If wind speed is over 25 mph, do not proceed with the lift: _____
- B. If wind speed is over 20 mph, consider postponing: _____

13. How will area be kept clear of pedestrian traffic: _____

14. Comments: _____

Lift Approval:

Signature:

Date:

- A. Crane Operator: _____
- B. Crane Inspector: _____
- C. Rigging Supervisor: _____
- D. Lift Supervisor: _____
- E. Signal Man: _____
- F. Project Superintendent: _____

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Critical Lift Checklist

Project Name: _____

Address: _____

Project No.: _____

Planning Data:

- A. Trade Contractor: _____
1. Superintendent: _____
 2. Lift Supervisor: _____
 3. Crane Operator: _____

B. Description of Item to be lifted: _____

- C. Major hoisting Equipment to be used:
1. Make and model of crane: _____
 2. Serial Number: _____
 3. Length of Boom: _____

- B. Equipment and Lift relationship:
1. Operating Radius: _____
 2. Boom length: _____
 3. Allowable Load (from load chart): _____
 4. Ratio of Lift to allowable load: _____
 5. Clearance between Boom and Lift: _____
 6. Clearance to surrounding facilities: _____

C. Schedule of Operations (include time for rigging and equipment inspection): _____

- D. Basis for Critical Lift:
1. Load exceeds 75% of Load Chart for Crane or Derrick: _____
 2. Load exceeds 50% of Load Chart and failure would endanger existing facilities: _____
 3. Two Cranes are required: _____
 4. Other: _____

- E. How weight of Critical Lift was obtained:
1. Certified Scale Weight: _____
 2. Calculated independently by more than one source:
 - a. Source: _____ Weight: _____
 - b. Source: _____ Weight: _____
 3. If lift is an existing item (being removed or demolished), the weight is to be recalculated, taking into account all modifications including internal as well as an allowance for scale, sediment, sludge, insulation, liquid, etc.
 - a. Source: _____ Weight: _____
 - b. Source: _____ Weight: _____

Date: _____ **Signature (Lift Supervisor):** _____

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DEMOLITION POLICY

Policy Statement

Each contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart T – Demolition, in addition to the following guidelines. Prior to mobilizing, all projects must obtain a hazardous materials pre-demolition survey from the owner. This Survey must be prepared by a qualified third party environmental firm and shall identify all hazardous materials associated with the affected area.

Procedures

1. Preparatory Operations

- a) Prior to initiating demolition activities, an engineering survey of the building must be made by a competent person to determine the condition of the structure and identify areas subject to unplanned collapse. A copy of this inspection must remain on site.

- b) In select demolition, if the utilities cannot be capped, shut off or locked out, a system must be in place to identify what utilities are active or de-energized. All utilities must be shut off, capped or locked out of service beyond the building line before demolition work is initiated. A Hazard Assessment must be performed prior to the start of work to identify any hazardous chemicals, gases, explosives, flammable materials or similarly dangerous substances that may have been used on the property.

- c) Where employees are exposed to fall hazards, guardrail and personal fall arrest systems must be used. Hole covers must be identified and secured against accidental displacement.

- d) Any openings cut in a floor for the disposal of materials can be no larger than 25% of the aggregate of the total floor area, unless the lateral supports of the removed flooring remain in place.

- e) Employee entrances to multi-story structures being demolished shall be completely protected by installing a canopy or sidewalk shed that is at least 8 feet out from the building with the walkway at least 2 feet wider than the building entrance/exit.

- f) Turner must ensure that the subcontractor has verified that all local ordinances and permitting issues have been addressed as they relate to demolition.

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2. Stairs, Passageways and Ladders

- a) Access to a structure being demolished will be restricted to designated stairways, passageways and ladders. Other access points will be closed at all times.
- b) All designated access points will be periodically inspected and maintained in a clean, safe condition.

3. Chutes

- a) Debris removal operations conducted inside the walls of a structure are usually accomplished through floor openings. When they are available, existing floor openings such as an elevator and ventilation shafts should be used for this purpose. Otherwise, a qualified person shall be consulted prior to cutting floor openings. Floor openings must not take up more than 25 percent of the aggregate of the total floor area on the second level, unless the lateral supports are left intact. Supporting beams must be left intact whenever possible, but when floors are weakened or otherwise made unsafe, they must be shored to carry the intended load from demolition operations.
- b) Each entrance to the second level with one or more floor openings must be posted with WARNING signs, which indicate the nature of the hazard.
- c) During the debris removal, securely fastened bumpers, 4" thick by 6" high must enclose the opening on the upper floor from which debris is being dumped. Intermediate floor openings must be barricaded by a substantial guardrail, midrail, and toe board extending 39 -45 inches high and located at least 6 feet from the opening. Debris cleaning operations on the bottom floor must not begin until all dumping has stopped.
- d) All floor openings, which are not in use as material drops, must be covered with a material capable of withstanding any load. Covers must be floor level. Covers shall be labeled and secured.
- e) Chute openings are provided on the second level where debris dumping is anticipated. A substantial guardrail shall be provided approximately 42 inches above the floor level. Any space between the edge of the floor opening and the chute must be solidly covered. When material is dumped into a chute by means of a wheelbarrow or mechanical devise, securely attached bumper, not less than 4 inches thick by 6 inches high, shall be provided at each opening. Each opening must be provided with a means of closure, which shall be kept closed when the opening is not in use.

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- f) No material may be dropped to a point outside the building unless a protective barricade is established. The material being dropped cannot be deflected or bounced any closer than 20' to the protective barricade.
- g) All chutes must be entirely enclosed except for openings at or slightly above the floor level for the insertion of materials.
- h) A substantial gate must be installed in each chute at or near the discharge end. A competent person must be assigned to control the operation of the gate and the backing and loading of trucks.
- i) Chutes must be designed and constructed of such strength as to eliminate failure due to the impact of material and debris loaded into them.
- j) When machinery will be near a chute opening, floor bumpers 4 inches thick & 6 inches wide are to be utilized, to prevent equipment from getting too close to the edge.
- k) The discharge end of chute must be provided with a substantial gate. This gate shall be closed when operations are not in progress or when the receiving truck or container is being changed. If a truck or tractor/trailer is parked for loading under the chute, the driver must be out of the truck and a safe distance away while it is being loaded. A competent person must be assigned to control both the operations of the gate and vehicular traffic in the vicinity of the chute. Under no circumstances should any worker enter a chute for the purpose of clearing accumulated material or debris.

4. Removal of Walls, Floors & Steel

- a) Masonry walls, including sections of walls, will not be permitted to fall onto the floor of the building under demolition unless an engineer has determined that the floor can withstand the imposed load.
- b) No wall section, more than one story in height, will be permitted to stand alone without lateral bracing unless it was designed to stand alone.
- c) Structural or load-supporting members of any floor will not be cut or removed until all stories above such a floor have been demolished or removed.

5. Removal of Walls, Floors and Material with Equipment

- a) Mechanical equipment will not be used on floors unless the floors are of sufficient strength to safely support the equipment.

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b) Mechanical equipment will only be used for its intended purpose according to the manufacturer's recommendations.

6. Removal of Steel Construction

a) Steel construction will be dismantled column length by column length, tier by tier.

b) When floors have been removed, planking 10" wide by 2" thick must be used by employees engaged in razing the steel framing.

7. Mechanical Demolition

a) No employees will be permitted in an area where "ball" or "clam" work is being performed. Only employees necessary for the performance of the operation may be permitted in this area.

b) The area must be identified with warning barricades and signs.

c) During this operation continuous observations, by the competent person, must be made to identifying potential areas of failure.

8. Storage

a) Storage of material or debris on any floor shall not exceed the allowable floor loads.

PURPOSE OF THE DEMOLITION WORK PLAN

TURNER Construction Company has prepared this Demolition and Removal Plan, hereafter referred to as the "Work Plan", for the purpose of providing a detailed description of demolition and removal procedures, which the Demolition Contractor will be implementing during the on-site activities.

SITE LOCATION AND DESCRIPTION

(Project name, address and description)

GENERAL WORK ACTIVITY OVERVIEW

The work covered under this Work Plan will be conducted in a sequential manner, with some activities being conducted concurrently with others. Demolition work will be performed in accordance with Cal OSHA, SCAQMD 403, the requirements of Turner Construction Co. Depending upon site and other unknown conditions, Turner's general sequence of demolition activities may require alteration at any

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given time. A summary of the general sequence for the work activities is outlined as follows:

- Pre-construction activities and site mobilization
- Pre-Demolition Survey of the building
- Verification of utility disconnects and isolations by others
- Demolition inside of building
- Haul off of all building components to proper off site facilities.

PERSONNEL HEALTH & SAFETY

TURNER considers safety and the prevention of accidents an integral part of its operation. Under Federal, State and local laws, TURNER is responsible to provide a safe working environment, to protect life, health and safety of its employees and subcontractor's personnel. Although providing safe working conditions is primarily a management responsibility, safety and accident prevention can be accomplished only through coordinated efforts of all employees and subcontractor personnel. It is the policy of TURNER Construction for this project as with all of our projects, that if the task or service being undertaken cannot be done safely, that work is to be stopped until proper controls can be established.

Turner will hold weekly all hands safety meetings for all subcontractors prior to work commencement at the first work day of the week. Additionally, TURNER will require that subcontractors be required to hold similar daily tailgate meetings covering their respective portion of the work. These meetings are designed to discuss the projected work schedule and prepare each worker for any potential hazards associated with the work activities. A copy of the daily or weekly safety meeting logs will be maintained onsite at all times. All personnel attending the safety meeting will be required to sign the safety-meeting log upon completion of the tailgate safety meeting. During the tailgate meetings, personnel will be reminded of site conditions and are encouraged to participate with health and safety concerns.

DEMOLITION ACTIVITIES

Prior to commencement of building demolition, a thorough walk through and evaluation of the building will be conducted to confirm that all appropriate measures have been completed to ensure that the area is ready for commencement of demolition activities. A Pre-Demolition Survey will be completed and filed in the TURNER field office or with the TURNER site manager.

In general, the tasks will include a wide variety of procedures. The most important aspect in the development of these procedures will be the safe conduct of the work. Turner's procedures will limit the use of labor to the most controlled and safe conditions and rely upon mechanized means of removal wherever possible. High bay scissors lifts, platforms will be used for all elevated work. All lifts and booms

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must be used with caution and the appropriate safety procedures, other modern hydraulic demolition tools and attachments will be utilized. Wherever possible, large structures will be removed to ground level using mechanized means. Subsequent sizing of scrap materials such as steel and rebar and other material processing activities will take place at grade level, hauled off site and recycled accordingly.

General building/structure demolition will be conducted in a manner that does not interfere with or encroach upon the existing surrounding pedestrian and vehicular traffic during normal activities. Turner Construction will provided fencing around the project site and subcontractors will work within the confines of the site fencing whenever possible. However, depending upon site and structure conditions, alternative methods of demolition and alternative types of equipment may be used to ensure the safest and most efficient means of operation

PRE-STRUCTURAL DEMOLITION ACTIVITIES

Subcontractors will perform salvage operations in accessible areas where the power has been isolated by an Electrical Contractor while the soft demolition and remaining clean up activities are going on. Subcontractors will use Bobcat skid steer loaders and hand labor to remove all soft debris that is not easily separated from the concrete material. This includes removal of, ceilings, HVAC ducts, insulation, plaster partition walls, lights and all other building components that will not be recycled. After much of the soft debris is removed TURNER will commence the abatement activities and then resume with additional salvage and interior demolition until the building is cleaned out of all soft demolition debris.

GENERAL STRUCTURE DEMOLITION

Demolition Contractor will utilize excavators and track loaders equipped with special demolition attachments (i.e. hydraulic breakers, concrete munchers, hydraulic shears, and grapples) to demolish the inside of the existing building. The concrete and steel debris will be sized into manageable pieces and hauled off site to a recycler for crushing and disposal...

Demolition Contractor will utilize excavators with demolition attachments (i.e. grapples, shears, and breakers) and track loaders to demolish these buildings. Demolition will begin from the top working down and from one end of the building working towards the other end. Excavators and loaders will systematically demolish the building structure and process the demolition debris. Demolition debris will be segregated and stockpiled for proper disposition. Slabs and footings will be broken in place, processed and hauled off site for recycling.

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DEMOLITION OF CONCRETE STRUCTURES

Concrete demolition will consist primarily of removal of building slabs, building walls, columns and footings. Assigned Subcontractors will use excavators to demolish the concrete down to slab or adjacent grade elevation. Track loaders may assist with debris removal, processing, stockpiling and loading.

FERROUS AND NON-FERROUS METALS RECYCLING

- During demolition of the existing building structure, assigned Subcontractor will process the demolition debris to recycle as much metal material as possible. Structural steel framing, metal roofing and siding, reinforcing steel in concrete, copper tubing, electrical cable, electrical gear, controls etc., will be separated prior to the demolition as much as possible. All metal materials recycled as part of this project will be documented with weight tickets which will be provided with each application for payment. These materials will be hauled to the appropriate recycling facilities:

DEMOLITION DEBRIS DISPOSAL

All demolition debris that will not be recycled will be loaded into semi-end dumps and hauled to a disposal facility for further recycling or landfill. The end dumps will be covered prior to leaving the site. The requirement of this contract in accordance with California Assembly Bill 75 is that 50% by weight of the construction and demolition debris be diverted from landfills by a combination of recycling and re-use. This includes interior soft debris (i.e. drywall, plaster, ceiling tiles, roofing material, etc.). Demolition debris may be hauled to the following disposal facilities:

PERSONNEL PLATFORMS / MANLIFTS USE

Platforms used for lifting personnel must be designed with a minimum safety factor of five. Platforms must be designed by a competent person. The suspension system shall be designed to minimize tipping when personnel move on the platform. Each platform must be provided with a standard guardrail system that is enclosed from the toe board to the midrail to keep tools, materials, and equipment from falling on workers below. Subcontractors are required to have pre – lift meetings and test lifts.

Workers must be trained in the proper care and use of manlifts. Personnel on the ground should be trained to lower the basket from the ground controls in case of an emergency. A pre – use inspection must be performed on each man lift, and a copy of the inspection documents should be kept on site.

Manlifts should be used only on smooth, firm, level surfaces and away from traffic. When traveling, the basket should be lowered as close to the ground as possible. All occupants must wear harnesses, along with shock absorbing dual lanyards. Safety

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harnesses must be tied off to the brackets provided on the manlift, not the unit's handrail.

DEBRIS REMOVAL

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Each entrance to the second level with one or more floor openings must be posted with WARNING signs, which indicate the nature of the hazard.

During the debris removal, securely fastened bumpers, 4" thick by 6" high must enclose the opening on the upper floor from which debris is being dumped. Intermediate floor openings must be barricaded by a substantial guardrail, midrail, and toe board extending 39 -45 inches high and located at least 6 feet from the opening. Debris cleaning operations on the bottom floor must not begin until all dumping has stopped.

All floor openings, which are not in use as material drops, must be covered with a material capable of withstanding any load. Covers must be floor level. Covers shall be labeled and secured.

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EARTHQUAKE EMERGENCY RESPONSE POLICY	SEC 2, DOC 5	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-4

EARTHQUAKE EMERGENCY RESPONSE POLICY

Purpose

Earthquake preparedness must become a way of life for most regions of the Southwest Business Unit. In the event of a major earthquake, freeways and surface streets may be impassable and public services could be interrupted or taxed beyond their limits. Therefore, everyone must know how to provide for their own needs for an extended period of time, whether at work, home or on the road.

Our goal in providing this information is to encourage you to prepare for a major earthquake and to maintain that readiness. Part of becoming ready is having the necessary supplies. Earthquakes, in our area, can happen at any time. They are not totally predictable. There are long periods between episodes. The quality of life and the potential for survival are greatly increased by being prepared.

- 1. Application:** The scope of the following plan applies to all earthquake scenarios including those of a magnitude which may cause major structural damage, medical emergencies and fatalities, power outages, the disruption of normal communication systems, travel disruptions due to road damage and bridge collapse, fires and other quake associated perils.
- 2. Responsibility:** Each location supervisor is responsible for completing and updating the required sections of this plan.
- 3. Response Team Assignments:** When determining Response Team assignments, the location supervisor should consider an employee's willingness and ability to perform emergency response tasks.
- 4. Preparedness Instruction and Training:** The plan's requirements should be communicated to all location employees and rehearsed as required. Employees with Response Team responsibilities should be trained in the use of emergency response tools, supplies and equipment, and in the selection and use of personal protective equipment.
- 5. Implementation:** The procedures outlined in this plan will be implemented after the earthquake shaking has stopped. The duck, cover and hold procedure shall be followed at the first indication of an earthquake.

Earthquake Assembly Area

Location on Site: Select an area that will not pose post earthquake dangers.

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Earthquake Evacuation Procedure

After the Shaking

Remain calm. Job foreman or contractor supervision should check for injured workers, employees or trapped individuals. If a worker is seriously injured, unconscious or trapped, workers should be trained to request evacuation assistance from a Turner Staff member or from the Search and Rescue Team. Anyone seriously injured, who should not be moved immediately, should be left where they are unless there is imminent danger, such as fire or the threat of immediate structural collapse. The location of seriously injured or trapped individuals who were not assisted during the initial evacuation must be reported to the emergency response Command Center.

Earthquake Evacuations

Proceed in a calm and orderly manner to the nearest building exit. If you are already outdoors, do not go back into the building. If a power failure occurs and emergency lighting is not available or is insufficient for a safe exit, wait for someone with a flashlight to provide assistance. The Search and Rescue Team will provide evacuation assistance to workers and employees with disabilities. Interior structural damage, fallen furnishings, broken glass and other debris may obstruct primary exit routes. Know your alternate routes. When exiting the building, be aware of exterior hazards such as glass from broken windows, fallen bricks, exterior building materials and downed power lines.

Once outside, stay away from the buildings, including covered meeting areas. Keep clear of metal fencing, and go to the designated assembly area.

Accounting for All the Location's Occupants

Supervisors will check to see that all their workers have arrived at the assembly area. Members of the Employee Accounting and Release Team will confirm the presence of all employees. The names of any missing employees and the names and locations of any injured or trapped persons remaining in the building will be immediately reported to the command center. Re-entry into the buildings is not allowed unless authorized by the command center.

Command Center Operations

Those persons designated as responsible for making emergency decisions will evacuate and set up a command center at a predetermined location. Command center employees are responsible for directing and coordinating all emergency response activities at that location. The command center will serve as the communications center with the Area Office and with walkie-talkie communications within the location. The command center will determine if the buildings can be re-entered.

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Fire Suppression/Utility Maintenance/Security

Members of the Fire Suppression/Utility Maintenance/Security Team will respond immediately after the shaking has stopped. Team members must have immediate access to tools and their personal protective equipment. In the event of a major quake, the team has the primary responsibility of turning off any natural gas and fuel oil lines to the buildings and for the suppression of small fires. The team may also turn off ruptured water lines to prevent excessive water damage.

Team members will secure the buildings and restrict unauthorized entry by workers and members of the public. Dangerous areas will be isolated with hazard tape to prevent unsafe exposures.

In the event a fire sprinkler head goes off, and there is no evidence of a fire in any part of the building, the team, at the direction of the command center, may unlock and shut the sprinkler system off at the main riser to replace the sprinkler head. When the head has been replaced, the system must be reopened and locked in the open position.

The team will provide the command center with a preliminary assessment of damages to the buildings and the status of utility services.

Search and Rescue

During the evacuation, the Search and Rescue Team will provide evacuation assistance where needed. After the initial evacuation, the team will report to the command center and, if directed, will re-enter with the proper equipment to search for any students or employees reported as missing or to assist those reported as injured or trapped.

Emergency First Aid and Psychological Assistance

Employees identified as members of the First Aid Response Team should set up a treatment area near, yet somewhat isolated, from the location's assembly area.

Team members should be responsible for delivering the location's emergency supplies and equipment to the assembly area. In addition to other emergency supplies, the emergency container shall include most of the supplies necessary for emergency first aid assistance.

All projects are required to have at least one first aid trained employee.

The team should inform the command center of any serious injuries requiring immediate medical attention. The command center will attempt to reach public emergency response services or determine alternative actions to attend to those seriously injured.

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A member of this team should also have the responsibility and skills to provide psychological assistance as needed. This member should also be bilingual at project locations with a large number of non-English speaking workers.

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EMERGENCY MEDICAL PROCEDURE	SEC 2, DOC 6	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1

EMERGENCY MEDICAL PROCEDURE

RESPONSIBILITIES:

1. Turner Construction Company shall be notified **immediately** after any form of incident on the project and the subcontractor shall submit their report to Turner within 4 hours.
2. Provision shall be made by Turner Construction Company (CCIP) and Subcontractor (OCIP) for immediate first aid and medical treatment for all work related injuries and illnesses.
3. In order to provide the highest level of care, contractors shall not use any medical provider that has not been approved by Turner Construction and or their insurance carrier.
4. Contractors will provide a **Modified Light Duty Policy**. Each Contractor will submit their policy prior to the commencement of work.
5. Contractors shall be individually responsible for notifying OSHA within eight (8) hours in the event of a fatality or a single incident in which three (3) or more employees are hospitalized.
6. Any employee who is involved in an incident in the course of their job duties, which results in an injury or property damage will be subject to a post incident drug test.
7. If A Member of the Public Is Injured, Turner Construction Company shall be notified **immediately**.

ACTIONS:

1. Immediately notify the Turner project Superintendent or Safety Manager.
2. Give the exact nature of the emergency (i.e. broken leg, fire, etc).
3. Give the exact location by area column or other easily recognizable terms.
4. Remain on the phone, if used, until Turner has confirmed the information given.
5. If an evacuation is not required, remain on the scene to brief emergency personnel upon their arrival.
6. Secure the area.

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ENVIRONMENTAL POLICY	SEC 2, DOC 7	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1 of 1

ENVIRONMENTAL POLICY

It is the policy of Turner Construction Company (Turner Environmental, Health and Safety Policy July 2013) to responsibly service our clients and be considerate of the environment in the conduct of our business without undue risk to the public, Turner Construction Company or its employees, or the work force. Accordingly, it is essential that environmental conditions are identified and satisfactory risk management strategies be put in place.

Environmental issues and associated health issues are highly regulated; require extensive specific training; require careful documentation; and have insurable limitations. It is not uncommon in the nature of the construction process to encounter potential environmental hazards from materials/processes used during construction or uncovering hidden/unknown hazards.

The Hazards Communication Policy requires identification of all hazardous materials brought on site and training of the work force working with these chemicals.

The Phase I and II Site Assessment will identify existing site hazards. A Phase I assessment or its equivalent should be completed before bidding or submitting a proposal for a project. Many times this is available from the Owner, and if so, it should be carefully reviewed for the completeness of the information. If necessary, retain a qualified consultant for testing and professional advice. All potential or suspected contaminated media or building components are to be tested (Phase II) prior to commencing site activities.

The following issues need to be considered during site setup pre-planning:

- A. Fuel and chemical storage areas should be flagged on your site logistics plan.
- B. Petroleum Products (diesel, gasoline, oil, etc.) and Drum Chemicals – A plastic or compatible barrier shall be placed on the ground surface. A berm (preferably hay bale) shall be established to adequately contain the volume stored and possible outside additions (rain, snow, etc.) with the barrier overlapping the berm. A composite absorbent shall be added to the area to aid in cleanup.

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EXCAVATION, SHORING AND TRENCHING POLICY	SEC 2, DOC 7A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-7

EXCAVATION, SHORING AND TRENCHING POLICY

Excavating is recognized as one of the most hazardous construction operations. The purpose of this policy is to ensure a safe work atmosphere is provided for Turner construction employees as well as all sub-contractor workers during excavation, shoring and trenching operations.

POLICY:

All excavation, shoring and trenching shall be supervised by a competent person, and performed in a safe manner in accordance with all applicable state and federal regulations, and TURNER CONSTRUCTION policies and procedures. In the event this policy is unclear as to correct actions to be taken when working in the previously mentioned environments, you are to refer to the OSHA and other applicable regulatory compliance standards.

PROCEDURES:

General Requirements

1. Excavations of five (5) feet or more deep require a Cal/OSHA or other regulatory permit. A Ground/Surface Penetration Daily Permit is required to be completed prior to conducting any earth moving operation/task.
2. Excavations of four (4) feet or more in depth require a confined space permit.
3. **Always** determine location of power lines, sewers, water lines, telephone lines, fuel lines, etc., prior to digging to prevent any possible damage and/or hazards.
4. Provide adequate protection for, and exercise extreme caution around, underground facilities when digging. Hand excavate within 2' of any known/existing facilities.
5. All owners of possible underground facilities in the proposed area of work are to be notified two (2) days in advance of commencement of job (Notify Underground Service Alert (USA) in California).
6. Trees, boulders and anything else that pose a potential safety hazard to the job shall be removed.
7. Work areas shall be inspected by a qualified person for safety hazards prior to the commencement of any earth moving activities. Additionally, these areas shall also be inspected by a qualified person after every rainstorm or other hazard increasing occurrence.
8. During excavations with a backhoe, there must be an observer or standby at all times to watch the backhoe bucket. This observer should be stationed adjacent to the excavation to avoid the operation of the backhoe. The observer is responsible for visually identifying any obstruction while the bucket is excavating, and alert the operator immediately if any obstructions are observed.
9. If the observer or standby leaves the excavation area, excavation efforts **MUST** be stopped immediately until he/she returns. Area must be protected/barricaded.
10. If pipe or other obstacles are encountered, shoring and hand excavation are required until the obstacles are identified and cleared.

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11. Excavations of more than four (4) feet tall shall be equipped with a system of shoring, sloping of ground or benching to increase stability, unless made entirely in stable rock. Sloping may not be steeper than 1-1/2 to 1. Excavations of less than four (4) feet shall be equipped with the above-listed items if there are indications that possible ground movement is possible (i.e. water, cracks, scaling, etc.)
12. A stairway, ladder, ramp or other safe means of egress shall be located in trench for excavations that are 4 feet or more in depth, so as to require no more than 25 feet of lateral travel to the nearest means of egress. Ladders must be secured and extend a minimum of 36 inches above the landing.
13. Employees exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.
14. Excavated material shall be prevented from falling back into the hole. Loose dirt may not be placed within two (2) feet of the hole.
15. **NO** employee is permitted under loads handled by lifting or digging equipment.
16. Qualified supervision must be on the job site at all times.
17. Only safe walkways shall be used to cross trenching and excavations. They shall be equipped with handrails and toe boards.
18. All wells, pits, and shafts **MUST** be barricaded or covered.
19. No worker shall work close enough to the outside of an excavation to risk falling in.
20. Heavy equipment shall be kept back from the edges of all excavations.

Hazardous Conditions

1. All excavations deeper than four (4) feet shall be tested for oxygen deficiency (less than 19.5% oxygen) and/or an atmosphere above the lower explosive limits (LEL) of a gas prior to employees entering the excavation (refer to Confined Space Entry Policy and Respiratory Protection Policy).
2. Atmospheric monitoring **MUST** be continued for long duration jobs in excavations in excess of four (4) feet deep to assure the safety of any employee entering this work area.
3. If any type of soil instability exists, even with proper shoring, anyone entering the excavation **MUST** wear a safety harness with a lifeline, attended by an outside attendant at all times.
4. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

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EXCAVATION, SHORING AND TRENCHING POLICY	SEC 2, DOC 7A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-7

EXCAVATION CHECKLIST
(To be completed by a Competent Person)

SITE LOCATION:		
DATE:	TIME:	COMPETENT PERSON:
SOIL TYPE: (See attached form):		
SOIL CLASSIFICATION:	EXCAVATION DEPTH:	EXCAVATION WIDTH:
TYPE OF PROTECTIVE SYSTEM USED:		

Indicate for each item: YES - NO - or N/A for not applicable

1. General Inspection of Jobsite:	
A. Excavations, adjacent areas, and protective systems inspected by a competent person daily before the start of work.	
B. Competent person has the authority to remove employees from the excavation immediately.	
C. Surface encumbrances removed or supported.	
D. Employees protected from loose rock or soil that could pose a hazard by falling or rolling into the excavation.	
E. Hard hats worn by all employees.	
F. Spoils, materials, and equipment set back at least two feet from the edge of the excavation.	
G. Barriers provided at all remotely located excavations, wells, pits, shafts, etc.	
H. Walkways and bridges over excavations four feet or more in depth are equipped with standard guardrails and toeboards.	
I. Warning vests or other highly visible clothing provided and worn by all employees exposed to public vehicular traffic.	
J. Employees required to stand away from vehicles being loaded or unloaded.	
K. Warning system established and utilized when mobile equipment is operating near the edge of the excavation.	
L. Employees prohibited from going under suspended loads.	
M. Employees prohibited from working on the faces of slopes or benched excavations above other employees.	
2. Utilities:	
A. Utility companies contacted and/or utilities located.	
B. Exact location of utilities marked.	
C. Underground installations protected, supported, or removed when excavation is open.	

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3. Means of Access and Egress:	
A. Lateral travel to means of egress no greater than 25 feet in excavations four feet or more in depth.	
B. Ladders used in excavations secured and extended three feet above the edge of the trench.	
C. Structural ramps used by employees designed by a competent person.	
D. Structural ramps used for equipment designed by a registered professional engineer (RPE).	
E. Ramps constructed of materials of uniform thickness, cleated together on the bottom, equipped with no-slip surface.	
F. Employees protected from cave-ins when entering or exiting the excavation.	
4. Wet Conditions:	
A. Precautions taken to protect employees from the accumulation of water.	
B. Water removal equipment monitored by a competent person.	
C. Surface water or runoff diverted or controlled to prevent accumulation in the excavation.	
D. Inspections made after every rainstorm or other hazard-increasing occurrence.	
5. Hazardous Atmosphere:	
A. Atmosphere within the excavation tested where there is a reasonable possibility of an oxygen deficiency, combustible or other harmful contaminant exposing employees to a hazard.	
B. Adequate precautions taken to protect employees from exposure to an atmosphere containing less than 19.5% oxygen and/or to other hazardous atmospheres.	
C. Ventilation provided to prevent employee exposure to an atmosphere containing flammable gas in excess of 10% of the lower explosive limit of the gas.	
D. Testing conducted often to ensure that the atmosphere remains safe.	
E. Emergency equipment, such as breathing apparatus, safety harness and lifeline, and/or basket stretcher readily available where hazardous atmospheres could or do exist.	
F. Employees trained to use personal protective and other rescue equipment.	
G. Safety harness and lifeline used and individually attended when entering bell bottom or other deep confined excavations.	
6. Support Systems:	
A. Materials and/or equipment for support systems selected based on soil analysis, trench depth, and expected loads.	
B. Materials and equipment used for protective systems inspected and in good condition.	
C. Materials and equipment not in good condition have been removed from service.	
D. Damaged materials and equipment used for protective systems inspected by a registered professional engineer (RPE) after repairs and before being placed back into service.	

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E. Protective systems installed without exposing employees to the hazards of cave-ins, collapses, or threat of being struck by materials or equipment.	
F. Members of support system securely fastened to prevent failure.	
G. Support systems provided in ensure stability of adjacent structures, buildings, roadways, sidewalks, walls, etc.	
H. Excavations below the level of the base or footing supported, approved by an RPE.	
I. Removal of support systems progresses from the bottom and members are released slowly as to note any indication of possible failure.	
J. Backfilling progresses with removal of support system.	
K. Excavation of material to a level no greater than two feet below the bottom of the support system and only if the system is designed to support the loads calculated for the full depth.	
L. Shield system placed to prevent lateral movement.	
M. Employees are prohibited from remaining in shield system during vertical movement.	

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CORRECTIVE ACTIONS AND REMARKS:

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DAILY TRENCHING LOG

DATE:		SIGNATURE:			
WEATHER:		PROJECT:			
Was One Call System contacted:		Yes _____		No _____	
Protective system:	Trench shield (box) _____	Wood shoring _____		Other _____	
	Sloping _____				
Purpose of trenching:	Drainage _____	Water _____		Gas _____	
	Sewer _____				
	Other _____				
Were visual soil tests made: If yes, what type?		Yes _____		No _____	
Were manual soil tests made: If yes, what type?		Yes _____		No _____	
Type of soil:	Stable Rock _____	Type A _____	Type B _____	Type C _____	
Surface encumbrances: If yes, what type?		Yes _____		No _____	
Water conditions:	Wet _____	Dry _____	Submerged _____		
Hazardous atmosphere exists:		Yes _____		No _____	
<i>(If yes, follow confined space entry procedures policy; complete Confined Space Entry Permit; monitor for toxic gas(es))</i>					
Is trenching or excavation exposed to public vehicular traffic (exhaust emission):		Yes _____		No _____	
<i>(If yes, refer to confined space entry procedures; complete Confined Space Entry Permit; monitor for toxic gas(es))</i>					
Measurements of trench:		Depth _____	Length _____	Width _____	
Is ladder within 25 feet of all workers:		Yes _____		No _____	
Is excavated material stored two feet or more from edge of excavation:		Yes _____		No _____	
Are employees exposed to public vehicular traffic:		Yes _____		No _____	
<i>(If yes, warning vests required)</i>					
Are other utilities protected:		Yes _____		No _____	
<i>(Water, sewer, gas or other structures)</i>					
Are sewer or natural gas lines exposed:		Yes _____		No _____	
<i>(If yes, refer to confined space entry procedures policy; complete Confined Space Entry Permit; monitor for toxic gas(es))</i>					
Periodic inspection:		Yes _____		No _____	
Did employees receive training in excavating:		Yes _____		No _____	

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FALL PROTECTION POLICY

Each Subcontractor shall provide and install fall protection systems required by OSHA 29 CFR Subpart M, pertaining to but not limited to: **Guardrail Systems, Personal Fall Arrest Systems, Positioning Devices, Safety Monitoring Systems, Safety Net Systems, and Warning Line Systems.** In addition, each contractor shall complete and submit the Turner Site Specific Fall Protection Action Plan.

All project employees that are exposed to a height of six – (6) feet or more above the next lower level shall utilize fall protection. Fall protection can consist in various types of systems and equipment such as but not limited to: Guardrail systems, personal fall arrest systems, safety net systems, warning line systems, positioning device, Safety monitoring systems and/or a combination of systems.

- **Exception: January 1, 2010 Use of retractable lanyards will not be allowed for fall exposures of fifteen feet or less. Exceptions will be considered whenever the retractable is anchored vertically. When horizontal use is the only means for fall protection (written JHA is required and must be approved by Turner Construction and Subcontractor).**

Prior to the use of any fall protection system, the equipment or plan shall be carefully inspected or reviewed to ensure the employee(s) are free from any potential fall hazardous conditions. Any piece of fall protection equipment observed to have discrepancies shall be removed from service.

Exception: Turner Construction prohibits the use of stilts at all jobsites.

Guardrail system:

Installation of a guardrail system around the work area is the primary means of fall protection. A guardrail shall meet the following minimum requirements.

Top-rail (handrail):

Shall be forty-two (42) inches plus or minus three (3) inches from the working surface. The top rails shall be able to withstand a falling force of two hundred (200) pounds within two (2) inches of its top edge from any direction of any portion of the top rail.

The top rail shall be of a smooth surface and designed to prevent employee injury from punctures, lacerations and prevent snagging of clothing.

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Mid-rail:

Shall be installed twenty-one (21) inches from the working surface. A mid rail must be able to withstand a force of one hundred and fifty (150) pounds applied in any downward or outward direction at any point along the rail. The mid rail shall be designed to prevent injuries due to punctures, laceration and prevent snagging of clothing.

Toe boards:

Shall be installed to prevent any objects from falling off the working surface onto an employee working or passing below. Toe boards must at a minimum be three and one half (3 ½) inches in height and capable of withstanding fifty (50) pounds of outward force applied to any portion of the toe board. Toe boards shall be installed the entire length of the working surface wherever there is a potential for objects to fall.

1. Each Subcontractor shall ensure that the use of **covers** for holes in floors, roofs, and other walking/working surfaces shall meet or exceed the requirements of OSHA 29 CFR Subpart M. All covers shall bear the markings "**HOLE or COVER DO NOT REMOVE**".
2. **Protection from falling objects** shall be in accordance with OSHA 29 CFR Subpart M.
3. When Subcontractors are core drilling in concrete, metal, etc they shall have the following safety measures in place:
 - Scaffold shall be under the deck to catch the core.
 - Warning lines shall be up around the scaffold with signs, stating, "**caution core drilling**".
 - All core holes 2" or more in diameter shall be covered and secured.

FALL PROTECTION (additional guidelines):

1. **Each Subcontractor** will develop systems and procedures designed to prevent employees from falling off, onto, or through working levels and to protect employees from being struck by falling objects.
2. Subcontractors are required to assess the workplace to determine if the walking/working surfaces on which employees are to work have the strength and structural integrity to safely support workers.
3. The Subcontractor must use a procedure that fully meets or exceeds the

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requirements of OSHA (29 CFR) Subpart M, Fall Protection 1926.500, 1926.501, and 1926.503 as well as Subparts L; R; and X: of the Federal OSHA Standards, in addition to any state or local requirements.

4. A **Controlled Access Zone** will be created in those areas designated and clearly marked in which certain types of work may take place without the use of conventional fall protection systems-guardrail, personal arrest or safety net-to protect the employees working in the zone.
Control lines shall be Flagged or otherwise clearly marked at no more than 6-foot (1.8 meters) intervals with high-visibility material; Rigged and supported in such a way that the lowest point (including sag) is not less than 39 inches (1 meter) from the walking/working surface and the highest point is not more than 45 inches (1.3 meters) nor more than 50 inches (1.3 meters) when overhand bricklaying operations are being performed-from the walking/working surface; Control lines shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge. The system shall be strong enough to sustain stress of not less than 200 pounds. Control lines also must be connected on each side to a guardrail system or wall.
5. Each employee at the edge of an **excavation** 6 feet (1.8 meters) or more deep shall be protected from falling by guardrail systems, fences, barricades, PFAS or covers.
6. Each employee in a **hoist area** shall be protected from falling 6 feet (1.8 meters) or more by guardrail system or personal fall arrest systems.
7. **Personal fall arrest systems, covers, or guardrail systems** shall be erected around holes (including skylights) that are more than 6 feet (1.8 meters) above lower levels.
8. Each employee who is constructing a **leading edge** 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.
9. Each employee performing **overhand bricklaying and related work** 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems or shall work in a controlled access zone. All employees reaching more than 10 inches (25 cm) below the level of a walking/working surface on which they are working shall be protected by a guardrail system, safety net system, or personal fall arrest system.
10. Each employee who is 6 feet (1.8 meters) or more above lower levels while erecting precast concrete members or related operations shall be protected

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by guardrail systems, safety net systems, or personal fall arrest systems.

11. Each employee using **ramps, runways, and other walkways** shall be protected from falling 6 feet (1.8 meters) or more by guardrail systems.
12. Each employee engaged in **roofing activities** 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.
13. Fall Restraint is to be worn in all aerial/scissor lifts per Section 1A of this Policy.
14. Guardrails are required to be installed on all mobile scaffold (Perry) at 48" and above per Section 18 of this Policy.
15. Each employee working on, at, above, or near **wall openings, or window openings** (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet (1.8 meters) or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1.0 meters) above the walking/working surface. Employees must be protected from falling by the use of a guardrail system, safety net system, or personal fall arrest system
16. **PROJECT EMPLOYEES FOUND IN VIOLATION OF TURNER FALL PROTECTION POLICIES SHALL BE SUBJECT TO ZERO TOLERANCE DISCIPLINARY ACTION IN ACCORDANCE WITH TURNER ENVIRONMENTAL, HEALTH AND SAFETY POLICY, JULY 2013 AND SECTION 17A OF THIS PROGRAM.**

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FIRE PREVENTION/HOT WORK POLICY	SEC 2, DOC 9	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-6

FIRE PREVENTION/HOT WORK POLICY

Purpose:

To establish the requirement for general safe work; Assure compliance with Federal, California OSHA (Cal-OSHA), local and client requirements; To establish practices for general safety requirements that are not required by OSHA regulations; Ensure that all workplaces are free and clear of all fire hazards and to maintain a high level of awareness for prevention of fires and protection of lives and property.

Scope:

These requirements apply to all contractors, subcontractors, vendors and suppliers.

1. Smoking is prohibited on Project sites..
2. Minimize the amount of flammable liquids and gases kept at the work area to a single work shift supply.
3. Close containers of flammable liquids when not in use. Report spills and indication of excessive flammable vapor/gas concentrations immediately.
4. Obtain the necessary permits when performing hot work. Training is required for operating under this permit, including the use of a fire watch.
5. Obtain the necessary permits for disabling fire protection systems.
6. Make sure materials and equipment do not block access to extinguishers and fire protection hoses, hydrants and standpipes.
7. Remove all flammables from the work area.
8. Remove all combustibles or control exposure to the exposed combustibles by (but not limited to) fire blankets, barriers, etc.

Flammable Liquids Handling:

1. A flammable liquid is any liquid with a flash point below 100 degree F. If you are not sure if a material is flammable, refer to the manufacturer's original shipping label. If you do not know the flash point of a specific material, refer to the MSDS.
2. Flammable liquids in excess of 10 gallons in any one area must be stored in approved flammable storage cabinets when not in use.
3. Flammable liquids must not be stored in open containers. Containers must be sealed when not in use. Safety can lids must never be locked in the open position.
4. Flammable liquids must not be stored in areas used for exits, stairways or areas normally used for the safe passage of people.
5. Flammable liquid containers must be approved for the intended use. They must be marked or labeled with the appropriate Hazard Communication label and marked "Flammable."

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6. The Turner Construction Company EHS Department prior to use must approve flammable liquids stored in pressurized containers.
7. Use grounding straps to ground the liquid containers used to dispense from. Inspect the grounding straps to ensure the connections are good and the straps are not frayed.
8. Bonding straps must be used to bond the metal container you are dispensing from to the metal container you are dispensing to. Bonding straps are not required if you are dispensing into a plastic container.
9. Do not dispense flammable liquids by gravity. Use manual or air driven pumps rated for flammable liquids.
10. Always wear the following personal protective equipment when dispensing: (next page)
 - Face shield and goggles
 - Solvent gloves
 - Body protection (see MSDS)
11. Immediately clean up any minor leaks (6" in diameter or less) or spills using absorbent material provided. Call Turner Construction Company EHS if the spill is larger than 6" in diameter and follow established spill procedures. Place soiled clean up materials in solvent waste container.
12. Never use or store Flammable liquids within 50 feet of an open flame or equipment that generates sparks.
13. Piping or tubing used to transfer flammable liquids must be metallic. Plastic, Teflon, polyethylene or tygon tubing shall not be used.

Fire Extinguisher Safety:

1. Fire extinguishers are located throughout the facility within a travel distance of 50-75 feet.
2. They are inspected monthly and tested periodically to ensure their performance.
3. Fire extinguishers must not be obstructed from access or blocked from view.
4. Personnel may not relocate fire extinguishers without approval from the EHS Department. If a fire extinguisher is removed from service for maintenance, a similar fire extinguisher must be relocated in its place.
5. Fire extinguishers shall only be used by trained personnel (i.e., ERT members) to fight incipient stage fires. If you are not trained to use a fire extinguisher, do not attempt to use it. Instead:
6. Evacuate the area.

FIRE PREVENTION PROVISIONS

Some provision should be made on every site to notify personnel to evacuate the building, whether because of fire or other emergency. The nature of the project will dictate this method, which can range from a temporary alarm system to a hand held marine emergency signal.

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Whatever the method, all on site should know what the warning is and how to activate it.

Upon evacuation, workers will meet at a designated area (at least 100 feet from the building and off roadways and access walkways that will be used by emergency response personnel) so that their respective supervisors can account for all people. Do not re-enter the building until the fire department has announced the building can be safely re-entered.

Notify the Fire Department

Regardless of the size of the fire or your estimation of your capabilities to extinguish it, the next action that must occur is the notification of the fire department. The first three minutes of a fire are the most crucial, and the most fires start out small enough that they could be easily extinguished. However, most large loss fires are also due to a delay in notification of the fire department. Your concerns that the department will think you are foolish for calling them for a small rubbish fire are wrong. They would rather respond to six small size fires that have been extinguished than a catastrophic fire they were notified of too late. Even if they arrive after the fire is extinguished, they can be sure it will not restart.

Provision must be made for notification of the fire department from within the building. The era of advancing technology has brought us the cellular or PCS phone system, but some projects may be located in an area without coverage. The use of radios in communication with the project office with regular phone service could be the answer. Again, the specific nature and location of the project will dictate its needs, and the site may require creative solutions.

Fight The Fire

Once evacuation is underway and you are sure the fire department has been notified, **if and only if you have unobstructed escape path to an exit**, you may consider fighting the fire. This phase is purely for property protection. While it is important to contain or extinguish the fire, the loss of property does not warrant the risk of life or limb by Turner Construction Company employees or subcontractors.

Extinguishments of the fire require the proper provision, distribution and maintenance of an extinguishing "system". This can range from normal fire extinguishers to a standpipe system with fire pump.

FIRE PROTECTION

1. Purpose:

We are all cognizant of the dangers associated with fires and all Project employees have a vested interest in a Fire Prevention Program. The following

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is a guide, setting forth-specific standards to aid in preventing losses as a result of fires or gases associated with combustion.

2. Fire Emergency Procedure:

A Fire Emergency Procedure shall be written and distributed by Turner Construction Company to all Subcontractors. This procedure shall include a description of the selected fire alarm systems, alarm code, reporting, and immediate action instruction. This procedure shall be periodically updated, discussed, and distributed at the Project Safety Meetings, and shall be conspicuously posted at phones and at employee entrances per OSHA Regulation 1926.150(e)(2).

3. Shanties and Trailers:

- a. All shanties and trailers constructed inside of buildings shall be constructed of fire retardant materials. Wood shall be marked with the UL Label.
- b. Shall be heated with approved heating devices.
- c. All shall be equipped with at least one (1) ABC #20 Fire Extinguisher in good working order with prominent signage denoting the location. Each gang box shall also have an ABC Fire Extinguisher
- d. Shall have a debris container adjacent to them.
- e. Shall not be used to store oily rags, oily cloths, or fuels.
- f. All shall be constructed in such manner that shanty fire shall cause no damage to permanent construction and installation

4. Water Lines (if applicable)

- a. A water line shall be extended as soon as possible behind construction to supplement the Fire Extinguishers placed throughout the construction area.

5. Fire Extinguishers:

- a. Turner Construction Company shall place the required number of fire extinguishers throughout the Project. In addition to or in lieu of fire extinguishers, fire hoses attached to the waterline shall be provided.
- b. Additional fire extinguishers shall be provided by each Subcontractor when they are engaging in fire susceptible activities, i.e., welding and burning, heaters in use, tar kettles, and storing paints and flammable

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liquids.

- c. Each shanty and gang box shall have at least one ABC Fire Extinguisher
 - d. All fire extinguishers shall be checked weekly for maintenance.
 - e. No fire extinguishers shall be removed or discharged except for fighting fire. Anyone discharging a fire extinguisher as a prank, or attempting to remove one from the site, shall be subject to immediate dismissal.
- 6. Use of Pressurized Gas Cylinders:**
- a. No combustible gases will be allowed on site until Turner Construction Company's Superintendent on site has received a copy of the required fire department permits.
 - b. All compressed gas cylinders must be clearly marked with subcontractor's name and contents.
 - c. All cylinders shall be upright and secured at all times.
 - d. All cylinders shall be provided with safety caps. Do not accept delivery of any cylinders not capped.
 - e. All empty cylinders must be marked with MT
 - f. All acetylene and fuel gas cylinders shall be separated from oxygen cylinders during storage by a minimum of twenty (20) feet or by a non-combustible barrier at least five (5) feet high with a fire resistant rating of at least one-half (1/2) hour. ANSI Z49.1.1973.
 - g. All oxygen and acetylene cylinders in use shall be firmly secured on a special carrier intended for this purpose.
 - h. All acetylene and fuel gas cylinders shall have a flash arrestor installed on the gauge end
 - i. All cylinders shall be stored and used in a secured vertical position. Storage areas shall be well marked and located as designated by Turner Construction Company.
 - j. ANY COMPRESSED GAS BOTTLES NOT STORED IN AN APPROVED MANNER WILL BE CONFISCATED BY TURNER CONSTRUCTION COMPANY. THERE WILL BE A FIFTY-DOLLAR (\$50.00) BACK CHARGE ASSESSED AGAINST YOUR MONTHLY

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INVOICE FOR EVERY BOTTLE ATTENDED TO EVERY TIME
TURNER CONSTRUCTION COMPANY HANDLES IT.

7. Temporary Heat:

- a. All heating equipment shall be wired, piped, and operated in accordance with all applicable Codes and Regulations, instructed by Turner Construction Company.
- b. Open fires shall **not** be permitted on this Project. Any employee failing to comply with this regulation shall be subject to immediate dismissal.

8. Basic Principles for Fire Protection:

- a. All temporary electrical shall be in accordance with all existing Codes and Regulations.
- b. Storage of any material within 10 feet of fire hydrants is strictly prohibited.
- c. Work areas shall be maintained on a regular basis to prevent accumulation of materials. Combustible packaging materials, such as cardboard boxes and excelsior, shall **not** be allowed to accumulate. Section 12 of this Policy.
- d. Machinery and/or motors shall not be left running during non-working hours except as directed or approved by Turner Construction Company.
- e. All fuel and solvent containers shall be placed on drip pans and stored according to all Federal, State, and Local Codes and Regulations.
- f. Solid fuel shall **not** be permitted on this Project, per OSHA Regulation 1926.154(D).
- g. Each Subcontractor shall provide a fire watch with an ABC 20# Fire Extinguisher when welding or burning. The area shall be checked periodically for a minimum of thirty - (30) minutes after the welding or burning operation has been completed. Hot work permits must be obtained and accepted prior to any hot work activity/task.

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HAND HELD DEVICE USE POLICY	SEC 2, DOC 9A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-3

HAND HELD DEVICE USE POLICY

Turner Construction Company recognizes that our employees and subcontractors are our most valuable assets, and the most important contributors to our continued growth and success. Turner Construction Company is firmly committed to providing a safe work environment for all workers and will do everything possible to prevent all work related incidents.

Purpose:

Governor Schwarzenegger signed Senate Bill 1613 into law, prohibiting the use of hand-held devices while driving. The law took effect on July 1, 2008.

Employers and employees are responsible for their actions and must conduct business within the law at all times. We may be held legally accountable for negligent acts committed in the course of conducting business.

Driver inattention is a factor in the majority of motor vehicle accidents. We are not only concerned about your welfare as a Turner employee, but also the welfare of subcontractors and others who could be put in harm's way by inattentive driving.

California prohibits mobile phone and hand held-device use while driving without a hands free device. Researchers at the University of Toronto found the risk of having a traffic accident while using a mobile hand- held unit or similar device to be the same as driving while intoxicated. For these reasons, Turner Construction Company employees, subcontractors and lower-tier subs, are prohibited from using mobile hand held units or hand- held devices for work-related calls while operating any vehicle. This Policy includes operating vehicles on all Turner jobsites.

This policy affects the use of mobile hand- held units and hand- held devices while operating the following types of vehicles:

1. Vehicles provided by Turner Construction Company.
 - a. Leased vehicles with no Turner decal.
 - b. Leased vehicles with Turner decal.
 - c. Golf carts and similar vehicles used for jobsite transportation of Turner staff.
2. Turner employees receiving vehicle allowance.
 - a. When using hand held devices for conducting Turner business.
3. Subcontractors and lower-tier subcontractors while on Turner jobsites.

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- a. Any company vehicle provided by the subcontractor.
- b. Golf carts and similar vehicles used for jobsite transportation.
- c. Forklifts and other material handling type vehicles.
- d. Scissor Lifts.
- e. Cranes.
- f. Delivery vehicles.
- g. All other types of vehicles used on Turner jobsites.

Definition - Mobile Hand Held Units are Hand held devices, which includes mobile hand held units, Smartphones, Blackberries, tablets and other communication devices.

Procedures/Expectations:

As a driver, your first responsibility is to pay attention to the road while driving on business, or driving while conducting business on behalf of the company on or off a jobsite, the following applies:

1. Hands-Free Devices

Workers shall utilize the correct hands-free equipment for their mobile hand held unit pursuant to California law. Hands-free operation does not guarantee 100% safety b u t will provide workers with less distraction if they must use their mobile hand held unit while operating a vehicle on the road or jobsite.

2. Warnings in Company Vehicles

Notices shall be placed in all company vehicles reminding employees that the main function of the vehicle operator is to safely operate the vehicle and not talking on a mobile hand held unit while driving.

3. Let Employees Take Responsibility

Any workers charged with traffic infractions as a result of the use of a mobile hand held unit will be responsible for paying any fines or other associated costs.

4. Provide An Answering Service or Forwarding Option

In the event the vehicle is not equipped with a hands free device, calls shall be forwarded to another individual or to an answering service. You can check messages upon arrival at your destination.

5. Shut It Off Clause

The use of a mobile hand held unit could cause a driver to become distracted and focus more on the mobile hand held unit discussion and less on their driving. As a condition of operation of a company vehicle, any person operating a vehicle previously described in this policy without a valid hands free device shall either "Shut It Off" or not answer calls.

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6. Alternative Action

If you need to place or receive a call, pull off the road to a safe location and stop the vehicle before using your phone.

7. Passenger(s)

Ask a passenger to make or take the call.

8. Pre-Planning

Inform regular callers of the best time to reach you based upon your driving schedule.

This Mobile Hand Held Device Use Policy is a guideline to reduce the likelihood of motor vehicle accidents. It may not prevent all motor vehicle accidents from occurring. It does not address potential compliance issues with Federal, State, local OSHA or any other regulatory agency standards. Nor is it meant to be exhaustive or construed as legal advice.

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HAND & POWER TOOLS POLICY

Policy Statement

All Turner Employees and Subcontractors working on a Turner project must comply with 29 CFR 1926, Construction Industry Regulations, Subpart I – Tools – Hand and Power, in addition to the following guidelines.

Procedures

1. General Requirements
 - a) All hand and power tools and similar equipment, whether furnished by the employer or the employee, shall be maintained in a safe condition, per the manufacturer's guidelines.
 - b) If the tool is designed to accommodate a guard or handle bar, the guard or handle bar and must be in place while the tool is being used.
 - c) Additional personal protective equipment (PPE), such as a face shield, goggles and/or hearing protection, may be required while operating a tool.
2. Electric Powered Tools
 - a) All power tools must be double insulated or provided with a three wire, grounded connection.
 - b) All cords are to be inspected prior to their use. Cords having the outer jacket damaged shall be removed from service or must be replaced or repaired per the manufacturer's instructions.
 - c) Only a qualified electrician may replace a cord and/or cord end.
3. Pneumatic Power Tools
 - a) Each connection on a pneumatic tool and air hose must be secured with a "whip-check" or similar device.
 - b) All air hoses, with an inside diameter exceeding ½ inch, must have a flow reduction device at the supply source to reduce pressure in case of hose failure.
 - c) Compressed air must not be used for cleaning unless the pressure is reduced to less than 30 p.s.i. and appropriate guarding and PPE are in place.

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- d) The 30 p.s.i. requirement does not apply to “blowing down” concrete decks or forms; however a spring loaded “dead man” control must be attached to the blowpipe.

4. Fuel Powered Tools

- a) Fuel powered tools must be stopped and turned off while being refueled, serviced or maintained.
- b) Combustion powered tools/equipment must not be utilized inside structures unless an evaluation has been conducted to ensure fumes will not affect personnel. The subcontractor who is utilizing the equipment is responsible to test and monitor the indoor air quality. Scrubbers and/or mufflers may be required as dictated by the testing.

5. Powder-Actuated Tools

- a) The manufacturer, or their representative, must train employees in the safe use of powder-actuated tools.
- b) The tool must be tested each day, according to manufacturer’s recommendations, before loading to see that safety devices are in proper working condition.
- c) Tools must not be loaded until just prior to the intended firing time.
- d) Loaded tools must not be left unattended.
- e) All tools must be used with the correct shield, guard or attachment recommended by the manufacturer.
- f) No lead based cartridges are to be used.
- g) Cartridges are to be safeguarded at all times.

6. Abrasive Wheels and Tools

- a) The RPM rating on all grinding machine motors must not exceed the speed rating of the grinding wheel attachment.
- b) All abrasive wheels must be closely inspected by the competent person and ring tested before mounting to ensure they are free from cracks or defects.

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7. Woodworking Tools

- a) All fixed, power driven woodworking tools must be equipped with a disconnect switch that can be locked out in the off position.
- b) All portable, power driven circular saws must be equipped with guards above and below the base plate or shoe.
- c) When the tool is withdrawn from the wood, the lower guard must automatically and instantly return to the covering position.

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HAZARD COMMUNICATION POLICY

Policy Statement

OSHA's Hazard Communication Standard, also known as HAZCOM, is now aligned with the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals, and requires each employer to establish a hazard communication program. GHS is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labeling systems of other international and US agencies. The result of the collaboration is a document called "The Purple Book." OSHA has modified the Hazard Communication Standard (HCS) to adopt the GHS to improve safety and health of workers through more effective communications on chemical hazards.

This program must provide a means to inform employees about the hazards associated with chemicals that they may be exposed to in the workplace. Turner's Hazard Communication Program (HCP) has been established to comply with this standard by ensuring that hazards associated with chemicals in the workplace are communicated to all employees who may be exposed to them.

The Turner HCP applies to all employees (Turner, Contractor, and Subcontractor employees) who perform work on projects managed by Turner. The communication of potential hazards associated with chemicals and hazardous materials in the work place shall be accomplished by means of implementing the following practices on each job site:

1. A written hazard communication program,
2. Use of container labeling,
3. Availability of Safety Data Sheets (SDS),
4. Maintenance of an on-site Chemical Inventory,
5. Employee training.

Procedures

A. Written Hazard Communication Program - Each Business Unit shall include the Turner HCP in its safety program and ensure that a site - specific HCP is provided for each job. The jobsite program document must describe the manner in which labeling, SDSs and employee training requirements will be satisfied. The BUSD shall assist the Project Staff with development of this program.

B. Chemical Inventory List - A list of chemicals known to be present on the jobsite will be compiled by the Turner Project Staff. This list will be maintained in the Turner project office and will be updated on a monthly basis. The list of the hazardous chemicals must be assigned a unique product identifier (i.e. number scheme) that

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can be cross-referenced on each corresponding SDS. Each subcontractor will submit an updated Chemical Inventory List to the Turner Project Staff.

C. Safety Data Sheets (SDS) – The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Safety Data Sheets or SDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format. The Turner Project Staff will be responsible to obtain and maintain the on-site file of all SDS's supplied by each Subcontractor. Turner project staff should coordinate the exchange of SDSs between the subcontractors when requested. SDS information should be for materials specific to the site. SDSs shall be accessible to all employees on-site. Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within six months of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information. As part of the GHS, all SDS's will be uniform in appearance and must contain the following sections:

- a) Section 1. Identification
- b) Section 2. Hazard(s) identification
- c) Section 3. Composition/information on ingredients
- d) Section 4. First-Aid measures
- e) Section 5. Fire-fighting measures
- f) Section 6. Accidental release measures
- g) Section 7. Handling and storage
- h) Section 8. Exposure controls/personal protection
- i) Section 9. Physical and chemical properties
- j) Section 10. Stability and reactivity
- k) Section 11. Toxicological information
- l) Section 12. Ecological information
- m) Section 13. Disposal considerations
- n) Section 14. Transport information
- o) Section 15. Regulatory information
- p) Section 16. Other information, including date of preparation or last revision

D. Container Labeling – A hazard classification will be completed by the manufacturer and the following information is to be provided for each hazard class and category. Labels will require the following elements:

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- a) Product Identifier (Ingredient Disclosure),
- b) Signal words,
- c) Hazard Statement,
- d) Pictograms,
- e) Precautionary Statements,
- f) Supplier Identification,
- g) Supplemental Information.

Secondary Container Labeling - Employers may choose to label workplace containers either with the same label that would be on shipped containers for the chemical under the revised rule, or with label alternatives that meet the requirements for the standard. However, the information supplied on these labels must be consistent with the revised HCS, e.g., no conflicting hazard warnings or pictograms.

E. Employee Training and Education – Turner Construction Company is responsible for training all Turner employees with regards to the HCP and the new GHS label elements (i.e., pictograms, hazard statements, precautionary statements, and signal words) and SDS format by December 1, 2013. An on-line training module on Turner University will be required to be taken by all employees by December 1, 2013. Full compliance with the final GHS rule will begin in 2015.

The list below contains the minimum required topics for the training that must be completed by December 1, 2013.

1. Label elements
 - a. Type of information the employee would expect to see on the new labels, including the product identifier, signal word, pictogram, hazard statement, and precautionary statement.
 - b. Name, address and phone number of the chemical manufacturer, distributor, or importer.
 - c. How an employee might use the labels in the workplace.
 - d. General understanding of how the elements work together on a label.
2. SDS
 - a. Standardized 16-section format, including the type of information found in the various sections.
 - b. How the information on the label is related to the SDS.

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- c. How to read and understand the information provided on the SDS.
- 3. An overview of the OSHA Hazard Communication Standard (29 CFR 1926.59).
- 4. The inclusion of welding or burning gases, cement, solvents, glues, wood dust, and soldering fumes as examples of common items to most jobsite, which present hazardous exposures to employees.
- 5. All employees attending a training class will sign an attendance form to verify that they have been properly trained in the Hazard Communication Program.

F. Hazardous non-routine tasks - Periodically, employees are required to perform hazardous non-routine tasks. An example of hazardous non-routine tasks is confined space entry to check the bottom of caisson. Prior to starting work on such projects, each affected employee will be given information by their supervisor about hazardous chemicals to which they may be exposed during such activity.

This information will include, but not be limited to:

- i. Specific chemical hazards.
- ii. Measures that employees will take to prevent exposures.
- iii. Measures the company has taken to lessen the hazard, including ventilation, respirators, presence of another employee, and emergency procedures.

6. Demolition / Renovation - When doing renovations or demolition at a jobsite, it is important to know the contents of all unmarked pipes, vessels, tanks or other type of containers as well as the location of lead, asbestos or other potentially hazardous materials that may be encountered. This information should be obtained from the Phase 1 Environmental Assessment and/or similar reports provided by the building owner. Once such information is identified, all of the above Hazard Communication program requirements must be enforced in order to communicate appropriate information to employees.

Employee Training Requirements

In compliance with the OSHA Hazard Communication Standard (HCS), Turner Construction Company has developed a Hazard Communication Program. This program is intended to inform employees of the potential hazards of chemical products that they may be exposed to while on the jobsite. By providing this information, our goal is to ensure that proper precautions are taken to minimize the health risks associate with the use of materials used in the construction of any building by Turner.

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In accordance with Turner policy, a written Hazard Communication Program (HCP) is prepared and maintained on the job by the Turner Project Staff. Included are specific guidelines concerning requirements of the Federal Law, such as safety data sheets, labeling and personal protection.

The following areas must be covered during each training session:

A. Safety Data Sheets - These are information sheets developed by the manufacturer of products (i.e. glues, solvents, paints, insulation), which contain hazardous materials are required to have the standardized 16 sections. SDS's are obtained by Turner for all material brought on the site by Turner or any subcontractor.

B. Labeling - Labels are an appropriate group of written, printed or graphic information elements concerning a hazardous chemical (i.e. paint, caulk, thinner, glue, or other material) that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging. Labels from the containers should never be removed. Labels must include the product identifier, signal word, pictogram, hazard statement, and precautionary statement.

C. Personal Protective Equipment - If personal protection is required, it will be provided for you by Turner or by subcontractors. In most cases, you will need nothing more complicated than safety glasses or goggles, gloves or a respirator. Equipment you will need will be determined by the information on the SDS provided by the product's manufacturer.

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HEAT ILLNESS PREVENTION POLICY (HIPP)

Purpose

To prevent heat illness and provide a safe and healthful working environment for all employees that may be exposed to temperature extremes, radiant heat, humidity, or limited air movement.

Heat Illness occurs when the body's means of controlling its internal temperature starts to fail. The body cools itself by blood flow to the skin's surface and by sweating. The sweat evaporates from the body which results in a cooling effect. Remember, that excessive sweating can lead to dehydration, therefore drink plenty of water (one cup every 15-20 minutes). Do not wait until you are thirsty.

Factors such as air temperature, work rate, humidity, clothing worn, age, weight, personal fitness, medical conditions (diabetes, heart condition, etc.), medications (water pills, blood pressure, heart condition, allergies, etc.), caffeine, and alcohol may contribute to heat illness. Clothing, Personal Protective Equipment (PPE), and humidity can restrict sweat evaporation and not allow the body to cool. The body continues to produce heat but is not able to release the heat so the body temperature rises. Eventually the body's control mechanism starts to fail. When this occurs symptoms of heat illness start to appear.

California Code of Regulation, Title 8, Section 3395 Heat Illness Prevention States (in part):

- The measures required within this section may be incorporated into the employers IIPP (CCR section 3203) or may be a stand-alone document.
- Timely access to shade is required below 85 degrees. Shade is required to be present when the temperature exceeds 85 degrees.
- Additional High-Heat procedures are required when temperatures equal or exceed 95 degrees.
- Training is required for supervisory and non-supervisory employees before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness.
- Additional training for supervisory employees is required.
- Documentation for complying with the requirements of this standard shall be in writing and made available to DOSH upon request.

Definitions

"Heat Related Illness" (HRI) - means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

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“Environmental risk factors for heat illness” - means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees. These conditions will be considered when determining if controls and methods to reduce the potential for heat related illness are needed.

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

“Active Cooling Equipment” – Clothing or powered devices (passive or active) that work to provide body core cooling when worn by an employee.

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

“Environmental risk factors for heat illness” means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

“Personal risk factors for heat illness” means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

“Preventative recovery period” means a period of time to recover from the heat in order to prevent heat illness.

“Temperature” – means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the bulb or sensor of the thermometer should be shielded while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

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Policy

Procedures for Provision of Water (include but are not limited to the following):

- Drinking water containers (of five to 10 gallons each) will be brought to the site, so that at least two quarts per employee are available at the start of the shift. All workers whether working individually or in smaller crews, will have access to drinking water.
- Paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until used.
- As part of the Effective Replenishment Procedures, the water level of all containers will be checked periodically (e.g. every hour, every 30 min), and more frequently when the temperature rises. Water containers will be refilled with cool water, when the water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried, to replace water as needed.
- Ice will be carried in separate containers, so that when necessary, it will be added to the drinking water to keep it cool.
- Water containers will be placed as close as possible to the workers (given the working conditions and layout of the worksite), to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.
- Water containers will be relocated to follow along with the crew, so drinking water will remain readily accessible.
- Water containers will be kept in sanitary condition.
- Daily, workers will be reminded of the location of the water coolers and of the importance of drinking water frequently. When the temperature exceeds or is expected to exceed 90 degrees Fahrenheit, brief 'tailgate' meetings will be held each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.
- Audible devices (such as whistles or air horns) will be used to remind employees to drink water.
- When the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, the number of water breaks will be increased, and workers will be reminded throughout the work shift to drink water.
- During employee training and tailgate meetings, the importance of frequent drinking of water will be stressed.

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Procedures for Access to Shade (include but are not limited to the following):

Note: Follow the general guidance provided above, under the Provisions for Water (identify the person assigned the task and list the specific tasks that have to be carried out).

- Shade structures will be opened and placed as close as practical to the workers, when the temperature equals or exceeds 85 degrees Fahrenheit. When the temperature is below 85 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.
- Enough shade structures will be available at the site, to accommodate at least 25 percent of the employees on the shift at any one time.
- Daily, workers will be informed of the location of the shade structures and will be encouraged to take a five minute cool-down rest in the shade.
- Shade structures will be relocated to follow along with the crew and they will be placed as close as practical to the employees, so that access to shade is provided at all times.
- In situations where trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated, before assuming that sufficient shadow is being cast to protect employees.
- In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide shade upon request.
- For non-agricultural employers, in situations where it is not safe or feasible to provide shade, a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide alternative cooling measures but with equivalent protection as shade.

Procedures for Monitoring the Weather (include but are not limited to):

- The supervisor will be trained and instructed to check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet (<http://www.nws.noaa.gov/>), or by calling the National Weather Service phone numbers (see CA numbers below) or by checking the Weather Channel TV Network. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected. This type of advance planning should take place all summer long.

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CALIFORNIA Dial-A-Forecast

Eureka 707-443-7062
Hanford 559-584-8047
Los Angeles 805-988-6610 (#1)
Sacramento 916-979-3051
San Diego 619-297-2107 (#1)
San Francisco 831-656-1725 (#1)

- Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Heat Index to evaluate the risk level for heat illness. Determination will be made of whether or not workers will be exposed at a temperature and humidity characterized as either "extreme caution" or "extreme danger" for heat illnesses. It is important to note that the temperature at which these warnings occur must be lowered as much as 15 degrees if the workers under consideration are in direct sunlight.
- Prior to each workday, the supervisor will monitor the weather (using <http://www.nws.noaa.gov/> or with the aid of a simple thermometer, available at most hardware stores) at the worksite. This critical weather information will be taken into consideration, to determine, when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).
- A thermometer will be used at the jobsite to monitor for sudden increases in temperature, and to ensure that once the temperature exceeds 85 degrees Fahrenheit, shade structures will be opened and made available to the workers. In addition, when the temperature equals or exceeds 95 degrees Fahrenheit, additional preventive measures such as the High Heat Procedures will be implemented.

Handling a Heat Wave:

- During a heat wave or heat spike, the work day will be cut short or rescheduled (example conducted at night or during cooler hours).
- During a heat wave or heat spike, and before starting work, tailgate meetings will be held, to review the company heat illness prevention procedures, the weather forecast and emergency response. In addition, if schedule modifications are not possible, workers will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.

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- Each employee will be assigned a “buddy” to be on the lookout for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

High Heat Procedures (include but are not limited to):

High Heat Procedures are additional preventive measures that this company will use when the temperature equals or exceeds 95 degrees Fahrenheit.

- Effective communication by voice, observation, or electronic means will be maintained, so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers (to observe them or communicate with them), then an electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable.
- Frequent communication will be maintained with employees working by themselves or in smaller groups (keep tabs on them via phone or two-way radio), to be on the lookout for possible symptoms of heat illness.
- Employees will be observed for alertness and signs and symptoms of heat illness. When the supervisor is not available, an alternate responsible person may be assigned, to look for signs and symptoms of heat illness. Such a designated observer will be trained and know what steps to take if heat illness occurs.
- Employees will be reminded throughout the work shift to drink plenty of water.
- New employees will be closely supervised, or assign a “buddy” or more experienced coworker for the first 14 days of the employment (unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for four or more hours per day).

Procedures for Acclimatization (include but are not limited to):

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee’s body hasn’t yet adjusted.

Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress.

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Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

- The weather will be monitored daily. The supervisor will be on the lookout for sudden heat wave(s), or increases in temperatures to which employees haven't been exposed to for several weeks or longer.
- During a heat wave or heat spike, the work day will be cut short (example 12 p.m.), will be rescheduled (example conducted at night or during cooler hours) or if at all possible cease for the day.**
- For new employees, the intensity of the work will be lessened during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.
- The supervisor will be extra-vigilant with new employees and stay alert to the presence of heat related symptoms.
- New employees will be assigned a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.
- During a heat wave, all employees will be observed closely (or maintain frequent communication via phone or radio), to be on the look out for possible symptoms of heat illness.
- Employees and supervisors will be trained on the importance of acclimatization, how it is developed and how these company procedures address it.

Procedures for Emergency Response (include but are not limited to):

- Prior to assigning a crew to a particular worksite, workers and the foreman will be provided a map of the site, along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads), to avoid a delay of emergency medical services.
- Prior to assigning a crew to a particular worksite, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.
- Prior to the start of the shift, a determination will be made of whether or not a language barrier is present at the site and steps will be taken (such as

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assigning the responsibility to call emergency medical services to the foreman or an English speaking worker) to ensure that emergency medical services can be immediately called in the event of an emergency.

- All foremen and supervisors will carry cell phones or other means of communication, to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift.
- When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- At remote locations such as rural farms, lots or undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.
- During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.
- Employees and supervisors training will include every detail of these written emergency procedures.

Handling a Sick Employee:

- **When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called.** A sick worker will not be left alone in the shade, as he or she can take a turn for the worse!
- When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be called.
- **Emergency service providers will be called immediately if an employee displays signs or symptoms of heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), does not look OK or does not get better after drinking cool water and resting in the shade. While the ambulance is in route, first aid will be initiated (cool the worker: place the worker in the shade, remove excess layers of clothing, place ice**

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pack in the armpits and groin area and fan the victim). Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital!

- If an employee does not look OK and displays signs or symptoms of severe heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 minutes away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request Air Ambulance.

Procedures for Employee and Supervisory Training (include but are not limited to):

- Supervisors will be trained prior to being assigned to supervise other workers. Training will include this company's written procedures and the steps supervisors will follow when employees' exhibit symptoms consistent with heat illness.
- Supervisors will be trained on how to track the weather at the job site (by monitoring predicted temperature highs and periodically using a thermometer). Supervisors will be instructed on, how weather information will be used to modify work schedules, to increase number of water and rest breaks or cease work early if necessary.
- All employees and supervisors will be trained prior to working outside. Training will include the company's written prevention procedures.
- Employees will be trained on the steps that will be followed for contacting emergency medical services, including how they are to proceed when there are non-English speaking workers, how clear and precise directions to the site will be provided and the importance of making visual contact with emergency responders at the nearest road or landmark to direct them to their worksite.
- When the temperature exceeds 75 degrees Fahrenheit, short 'tailgate' meetings will be held to review the weather report, to reinforce heat illness prevention with all workers, to provide reminders to drink water frequently, to inform them that shade can be made available upon request and to remind them to be on the lookout for signs and symptoms of heat illness.
- New employees will be assigned a "buddy" or experienced coworker to ensure that they understand the training and follow company procedures.

Timely access to shade is required at all times, provisions to be made by the employer for their employees. Upon days where the temperatures are forecast to be above 85 degrees, an adequate supply of shade is expected to be present very near the work location. Upon days where the temperatures are forecast or become 95 degrees or higher, **high-heat** procedures will be implemented by the employer.

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Outdoor Work Assignments

Managers and supervisors shall ensure that they are aware of the most current and accurate meteorological information (ambient temperature and relative humidity) in areas of the project where they will be assigning employees to work. The manager and/or supervisor shall implement the proper controls when local weather conditions have achieved, or are expected to achieve the following threshold:

more than 48 hours with day time temperatures at or above 90° F and relative humidity at or above 80%.

Work Assignments in Indoor Environments

Where employees are assigned work in an indoor environment where ambient temperatures will meet or exceed 100° F, managers and supervisors will ensure that:

- Prior to the start of the work shift, when interior environmental conditions require the application of the HIPP, managers and/or supervisors shall meet with their employees, and review the work procedures to be used during the high heat period.
- Managers and/or supervisors shall ensure that exposed employees have access to cool potable drinking water. Water must be provided to employees at the beginning of the work shift in sufficient quantities to ensure that employees can consume one quart of potable water per hour.
- Employees may be provided with smaller quantities of water if provisions are made to supply one quart of water per hour per employee.
- Managers and/or supervisors shall encourage frequent drinking of water by employees.

Managers and/or supervisors shall ensure that employees assigned work outdoors and exposed to high environmental temperatures shall have quick and effective access to a rest area where shade is available, or to an area where ventilation or cooling is provided for a period of not less than 5 minutes. Employees shall have access to shade or cooling.

Training:

Employee training: Effective training in the following topics shall be provided to each supervisory and non-supervisory employee before the employee begins work that should reasonably be anticipated to result in the exposure to the risk of heat illness:

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- Environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment.
- The employer's procedures for identifying, evaluating, and controlling exposures to heat illness,
- The importance of frequent consumption of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- The importance of acclimatization,
- The different types of heat illness and the common signs and symptoms of heat illness,
- The importance of immediately reporting symptoms or signs of heat illness in themselves or coworkers to the employer,
- The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided if the need arises,
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by medical service personnel,
- The employer's procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders. These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.

Supervisor training:

Prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness; effective training on the following topics shall be provided to the supervisor:

- The information provided for non-supervisory employee training,
- Procedures the supervisor will follow to implement controls as determined by the employer,
- Procedures the supervisor will follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- How to monitor weather reports and how to respond to hot weather advisories.

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First Aid awareness and actions in the event of a heat related illness:

The following chart (next page) will assist employees to recognize the different types of heat related illnesses, symptoms, and the appropriate treatment to reduce the effects of the heat related illness:

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	Symptoms	Treatment
Heat cramps	<ul style="list-style-type: none"> • muscle spasms in legs or abdomen 	<ul style="list-style-type: none"> • move person to a cooler location • stretch muscles for cramps • give cool water or electrolyte-containing fluid to drink
Heat exhaustion	<ul style="list-style-type: none"> • headaches • clumsiness • dizziness/lightheadedness/fainting • weakness/exhaustion • heavy sweating/clammy/moist skin • irritability/confusion • nausea/vomiting • paleness 	<ul style="list-style-type: none"> • move person to a cooler place (do not leave employee alone) • loosen and remove heavy clothing that restricts evaporative cooling • if conscious, provide small amounts of cool water to drink • fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling • call 911 if not feeling better within a few minutes
Heat stroke	<ul style="list-style-type: none"> • sweating may or may not be present • red or flushed, hot dry skin • bizarre behavior • mental confusion or losing consciousness • panting/rapid breathing • rapid, weak pulse • Seizures or fits. 	<ul style="list-style-type: none"> • call 911 • move person to a cooler place (do not leave employee alone) • cool worker rapidly • loosen and remove heavy clothing that restricts evaporative cooling • fan person, spray with cool water, or apply a wet cloth to skin to increase evaporative cooling

Controls for reducing heat exposure:

Understanding the effects of heat and devising a means to reduce our exposure to unnecessary heat is paramount in avoiding heat related illness. As part of the activity pre-pre-planning process, methods to reduce employee heat exposure should be explored.

Some methods to reduce heat exposure are:

- Adjusted work hours
- Individual canopy use (i.e. for welders)

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- Use of light breathable clothing suitable for the task
- Rotation of manpower out of direct sunlight
- Attention to heat emitted from equipment
- Use of fans

Supervisory and non-supervisory concerns regarding heat illness prevention should be addressed to Turner's project management team.

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HOUSEKEEPING REQUIREMENTS

This policy will apply to all work performed by Turner Construction Company employees, contractors and vendors including, but not limited to, the following activities: construction, installation, demolition, remodeling, relocation, refurbishment, testing, and servicing or maintenance of equipment or machines.

All work locations will be kept clean and free of debris, clutter and unsafe conditions at all times, including off-shift or unattended hours. All work materials and waste materials will be managed in a manner that promotes this policy.

Requirements:

- Work areas must be kept clear and free of obstructions by material/debris.
- Clean-as-you-go practices are required. Do not wait until all work has been completed before cleaning up. Instead, break the work down into smaller tasks and clean the area after each task is completed.
- Materials will not be stored in a manner that will block, restrict, impede or prevent access to an egress path or emergency equipment, such as fire extinguishers, emergency eyewash or shower, emergency disconnect devices.
- Stairways shall not be used as storage areas.
- Work that may temporarily block emergency exits, safety showers, elevators, corridors, and hallways will require Turner Construction Company approval and notification of all affected personnel.
- Comply with the Turner Policy Nothing Hits the Ground (NHTG) and Elevated Work Surfaces (LEAN)
- The housekeeping goal is "Home Depot" Clean (LEAN/Shine)

Cord Management:

- At no time shall cords be strung across exit ways creating a tripping hazard, or in front of emergency equipment.
- Preferred methods to ensure cords do not create a tripping hazard.
 - Run cords overhead, if feasible, using non-conductive means to suspend the cord.
 - Run cords around perimeter, if feasible.
 - Tape cords down, use cord covers.
- Support all cords that run through floors or ceilings with appropriate means.
- All cords must be stored and put away after use. (I.e. not coiled up on floor/ground)
- All extension cords must be equipped with GFCI protection or be plugged into wall GFCI outlet
- All cords must be inspected before use.
- If the above listed safety requirements cannot be met, temp wiring must be installed to facilitate proper cord management.
- All cords must be rolled up daily.

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Material Storage:

- Materials stored in the vicinity of the area where work is performed should be limited to only those materials that will be used in the same shift.
- Turner Construction Company and owner must approve any material stored in a work area longer than 24-hours. (JIT delivery is required)
- Materials should be stacked in a safe and orderly manner.
- Store all items neatly in cabinets or on shelves.
- Gang boxes and toolboxes may not have materials stored on top of them.
- If more storage area is needed, contact your Turner Construction Company Superintendent.
- All materials shall be kept on carts with locking wheels (LEAN) (exceptions: masonry blocks/brick, drywall sheets)

Chemical Storage:

- All chemicals and equipment containing chemicals must be stored in approved areas. (i.e. chemical cabinet, bunker). No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. Not more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet.
- Subcontractors are responsible for removing all unused chemicals from the site at the completion of their project.
- All chemicals must be properly labeled, at all times.
- Oxygen and fuel gas cylinders shall be separated by 20 feet or a ½ hour fire resistive barrier no less than 5 feet high. Cylinders shall be secured in an upright position at all times.
- All dedicated chemical storage areas, for Subcontractors, must have material safety data sheet (MSDS/SDS) available at the storage location.
- If you are unsure of appropriate storage areas, please contact a Turner Construction Company Safety Manager for direction.

Material/Waste Disposal:

- The Turner Construction Company Safety Manager and/or designee must approve all chemicals prior to use. Turner Construction Company shall be provided with a copy of the MSDS/SDS before materials are brought on site.
- Waste disposal methods must be specified on the MSDS/SDS.
- All hazardous waste must be disposed of in accordance with federal, state and local requirements.
- All hazardous waste must be properly labeled.
- Hazardous waste material must be discarded into proper disposal containers
- Contaminated material must be decontaminated prior to placement in any recycle bin.
- Non-hazardous waste must be disposed of into appropriate recycle or disposal containers

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LADDER, STAIRS and RAMPS SAFETY REQUIREMENTS

PURPOSE

I. Policy Statement

Each contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart X – Stairways and Ladders, in addition to the following guidelines.

II. Procedures

1. General Requirements

- a) A stairway or ladder must be provided at all personnel points of access where there is a break in elevation of 19" or more.
- b) Scaffold type stair towers or prefabricated stairs shall be utilized instead of job built ladders.

2. Stairways

- a) When doors from an office or storage trailer open directly onto a stairway, a platform must be provided and the swing of the door must allow an additional 20" to prevent the door from striking an employee.
- b) Employees are not allowed to use metal pan stairs unless they have been fitted with wooden filler blocks or poured with concrete.
- c) Stairways with four or more risers or rising more than 30", whichever is less, must have a stair rail or handrail along each unprotected side or edge.
- d) Handrails that will not be a permanent part of the structure being built shall have a minimum clearance of 3 inches between the handrail and walls, stair rail systems, and other objects. 2x4 blocks are acceptable for spacers.
- e) The stair rails are to free of nails & hazardous projections.

3. Ladders

- a) Turner has implemented a ladders last program on all Projects.
- b) Only fiberglass ladders are to be utilized. Metal and wood ladders will not be used on Turner projects.
- c) At a minimum, only Type IA Heavy Duty (300 lb. limit) ladders may be used on Turner projects.
- d) When employees ascend or descend a ladder, they must maintain a three-point contact and not carry anything that could cause them to lose their balance.

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- e) Pull ropes should be placed at all access ladders so employees can safely lift tools or equipment to upper levels.
- f) Stepladders must be opened fully and set level when in use.
- g) When extension ladders are used to access upper landings, the side rails must extend at least 3 feet above the landing and secured at the top.
- h) All ladders must be used for the purpose for which they were designed.
- i) The base of an extension and or straight ladder is to be placed 1 foot horizontal from the face of the surface for every 4 feet vertical.

4. Training

- a) Each employee involved in stair and ladder use must be trained by a competent person in the recognition and avoidance of stair and ladder hazards.

III. Ladders Last Policy Statement

- 1. Ladder use on Turner Construction projects will be allowed only when it has been determined that it is unfeasible to use all other options to complete the task.
- 2. If it is determined that a ladder is the only means of performing the job at elevated height, a ladder permit must be submitted prior to starting work. At no time will a ladder be on site without a current permit and safety checklist.
- 3. Use of job built ladders is prohibited on Turner Construction Projects. Temporary stair towers or prefabricated stairs shall be used to access different building levels.

IV. Procedures for identifying and responding to all tasks that require the use of a device that allows work from height:

- 1. Prior to beginning work, the subcontractor or superintendent (for self-perform work) shall evaluate all tasks that require individuals to work at elevated heights. It is the expectation that these tasks will be performed using methods other than a ladder. Use of lifts and portable scaffold devices shall be the preferred method to perform this type of work.
- 2. If it is determined that a ladder must be used:
 - a. The subcontractor shall complete the Turner Construction Ladder Use Permit and have it reviewed and approved by the Turner Superintendent.
 - b. Workers must maintain three points of contact at all times when working from a ladder. If this cannot be done, worker must tie off at any height.

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- c. When working at a height greater than six (6) feet, 100% fall protection is required. A retractable is the only option in this case.
- d. Prior to starting work each shift, The Turner Construction Ladder Safety Inspection Checklist shall be completed affixed to all ladders.
- e. Platform ladders shall be the ladder of choice on Turner Construction projects.
- f. Prior to using a ladder, the Turner Superintendent will review and approve the Job Hazard Analysis, Pre Task Plan, and Ladder Use Permit.

Ramps and Runways

Regulations concerning ramps and runways are as follows:

General requirements

1. Ramps must be properly designed to provide a safe means of access for foot or vehicle traffic.
2. Open sides of ramps that are six (6) feet or more above ground must have standard guardrails.

Foot ramps:

1. Foot ramps must be at least 20 inches wide and must be secured and supported to avoid deflection or springing action.
2. If the ramp slope exceeds two (2) feet of rise for every ten (10) feet of run, cleats must be eight (8) inches or more in length and must be placed not more than 16 inches apart.

Wheelbarrow ramps and runways

1. Wheelbarrow ramps and runways must be firmly secured against displacement.
2. Ramps more than three (3) feet high must be 30 inches wide, and planks must be firmly cleated together.
3. False-work design loads must be increased by ten (10) psf for worker propelled carts.

Ladders Last Policy Statement

Ladder use on Turner Construction projects will be allowed only when it has been determined that is unfeasible to use all other options to complete the task. If it is determined that a ladder is the only means of performing the job at elevated height, a ladder permit must be submitted prior to starting work. At no time will a ladder be on site without a current permit and safety checklist.

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Use of job built ladders is prohibited on Turner Construction Projects. Temporary stair towers or prefabricated stairs shall be used to access different building levels.

Procedures for identifying and responding to all tasks that require the use of a device that allows work from height:

Prior to beginning work, the subcontractor or superintendent (for self perform work) shall evaluate all tasks that require individuals to work at elevated heights. It is the expectation that these tasks will be performed using methods other than a ladder. Use of lifts and portable scaffold devices shall be the preferred method to perform this type of work

If it is determined that a ladder must be used:

1. The subcontractor shall complete the Turner Construction Ladder Use Permit and have it reviewed and approved by the Turner Superintendent.
2. Workers must maintain three points of contact at all times when working from a ladder. If this cannot be done, worker must tie off at any height.
3. When working at a height greater than six (6) feet, 100% fall protection is required. A retractable is the only option in this case.
4. Prior to starting work each shift, The Turner Construction Ladder Safety Inspection Checklist shall be completed affixed to all ladders.
5. Platform ladders shall be the ladder of choice on Turner Construction projects.
6. Prior to using a ladder, the Turner Superintendent will review and approve the Job Hazard Analysis, Pre Task Plan, and Ladder Use Permit.

Roles and Responsibilities:

Operations Manager & Business Unit Safety Director:

- Ensures adherence to Corporate Policy and drives implementation across the organization.
- Ensures the Estimating/Purchasing Department shall include the associated costs with the policy on all project proposals, budgets and GMPs.

Project Executive/Manager:

- Ensure that Project Staff understand and comply with Corporate Policy relating to ladder use.
- Act as a liaison between project team and subcontractors.

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- Confirm that the subcontractors has included in their bid any costs associated with this policy.

BU Purchasing Manager:

- Ensure all subcontractors hired by Turner understand the policy and are prepared to execute work in compliance.
- Ensure this policy is specifically addressed and the costs are understood during the scope meetings with each subcontractor.

Project Safety Manager & Superintendent:

- Provide technical expertise to the project team regarding alternatives to ladder use.
- Assist in the negotiations between the project team and the subcontractor.
- Drive the use of the Ladder Safety Checklist and Permit.
- Assist in developing Job Hazard Analysis and pre-task plans to ensure risks are identified and mitigated.

USAGE:

- Ladders shall be used only on stable and level surfaces. All ladders must have slip resistant feet.
- Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways, shall be secured to prevent accidental displacement.
- The area around the top and bottom of a ladder shall be kept clear and shall not be used for storage of unattended materials.
- The top of a straight ladder shall be placed with the two rails supported equally, unless it is equipped with a single support attachment.
- Straight/extension ladders shall extend a minimum of 3 rungs or 36" above the surface to be accessed.

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- Step ladders shall only be used in the fully open position, with spreaders locked.

STORAGE:

- Ladders are to be stored in a secure manner that will not allow them to fall.
- Storage methods
- Chained together upright
- Laid down flat stacked in a manner so they cannot tip/fall. Maximum of 4 stacked on top. (Head to toe)
- On supported wall racks designated for ladder storage
- When shift work is complete, the ladders will be returned to a designated storage area as deemed by Turner Construction Company.

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LADDER SAFETY
INSPECTION CHECKLIST

Inspector:	Date:
Site Location:	Time:

Instructions:

- 1) Complete Permit on flipside first
- 2) Affix completed inspection tag on all ladders passing inspection
- 3) Tag defective ladders "Out of Service" and discard if beyond repair
- 4) Note deficiencies/corrective actions in Comment section
- 5) Return checklist to Turner Superintendent

- | | | |
|--------------------------|--------------------------|---|
| Y | N | |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Broken, bent or missing steps, rungs, cleats, or rails? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Steps and rungs free of water, grease, oil or other slippery substance? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Free of splits, cracks, rust corrosion and dry rot? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Free of sharp edges, cuts, burrs, etc.? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Loose or bent hinges that can't be fully opened or locked in place? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Stable and completely balanced (not shaking or swaying) with all legs resting firmly on the floor? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Loose, broken or missing extension locks to ensure safe overlap of extension ladder sections? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Damaged or worn non-slip bases, safety feet, wheels or casters? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Cross-over ladders have railings and non-slip steps? |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Weight capacity label attached? Type 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Other structural defects or operating problems? |

Comments:

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LADDER PERMIT

Project: _____ Date: _____

Contractor Company: _____

Area(s) Ladder to be used: _____

Ladder Competent Person: _____

Competent Person Contact #: _____

Consider how work may be accomplished at or from the ground-level to minimize elevated work. Ladders are to only be used where no safer means exists to access elevated areas. Consider the use of scaffolds, aerial and scissor lifts, rolling stairs, etc as safer alternatives. **Note: If three points of contact cannot be maintained, 100% fall protection is required.**

Reason ladder is only option (Note: This must be agreed to and approve by the Turner Superintendent and Safety Manager):

Activity/Task(s) to be performed from ladder:

Type of ladder (check one): Platform-ladder Stepladder Extension Fixed Trestle Other

Ladder weight capacity (300 lbs min): _____

Ladder Height: _____

Will you be 6' or more above a working surface? **Y/N**

If YES, what specific Fall-Arrest System will you use and what will be your anchor point?(Retractable Device is the only appropriate method of fall protection)

Worker's Name _____ Orientation Sticker # _____

Permit Reviewer (Turner) Print

Date

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LOCK OUT/TAG OUT POLICY	SEC 2, DOC 14	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-8

LOCK OUT/TAG OUT POLICY

Policy Statement

The intent and purpose of this procedure is to limit and / or eliminate the danger of the unexpected release of stored or residual energy that could cause injury or death to the employee or to the general public. Each contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart K, Section 1926.417, "Locking and Tagging of Circuits", in addition to the following.

Procedures

Lock Out/Tag Out (LOTO) will not be considered for use until all other avenues of attaining a "zero-energy state" have been exhausted.

PURPOSE:

It is the purpose of this program to provide a means of effectively removing or eliminating injury or damage to personnel, property or the environment from the sudden or uncontrolled release of energy. This policy provides information that will aid employees in the recognition of systems and sources of hazardous energy through the use of a Hazard Analysis. From the analysis, procedural steps will be identified, developed and implemented to eliminate or control the potential hazards associated with an identified energy source.

TURNER believes the program will protect employees from injury, and will training raise the level of employee awareness.

POLICY:

The authorized employee should ascertain the exposure status of individual group members. Each employee shall attach a personal lockout or tag out device to the group's device while he/she is working & then removes it when finished. During shift change or personnel changes, there should be specific procedures to ensure the continuity of lockout or tag out procedures. Documentation should be specific.

The procedures should address different crafts, departments, etc. The procedures should afford the group of employees a level of protection equal to that provided by a personal lockout or tag out device

Periodic inspections of the energy control procedure must be conducted at least annually to ensure that the procedure is being followed. The program should address who performs the inspection (it must be someone other than those actually using the lockout/tag out in progress). A certified review of the inspection including date, equipment, employees & the inspector should be documented

Each job will be reviewed using a Hazard Analysis form prior to the initiation of work. This pre-plan will assist in identifying systems and sources of hazardous energy. All sources of energy with the potential for release energy must be secured in accordance with TURNER or client or owner's Lockout/Tag out procedures and policies. Only client or owner representatives (i.e. operators, client maintenance personnel) are to operate valves or electrical switches prior to Lockout/Tag out.

This is a **"ZERO TOLERANCE"** policy. **Disciplinary action for violation of this policy will be termination.**

PROCEDURE:

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Hazardous Energy Identification:

The first step in hazard control is hazardous energy identification. Energy may take different forms. Some sources of energy that TURNER employees may encounter are:

- Chemical Energy – Raw chemicals or combinations of chemicals that can result in a chemical reaction.
- Electrical Energy – Electricity from portable welding machines, lighting systems, electrical panels or junction boxes, receptacles and attached devices.
- Hydraulic Energy – Pressurized fluids and pumps, usually piston driven, such as a jack, press, or torque tool. These systems may be found on heavy equipment and portable tools.
- Mechanical Energy – Involve gravity, such as gears, press plates, hand tools, winches, heavy machinery, and compressed springs and dampening devices.
- Pneumatic Energy – Compressed air transferred through hoses, pumps and rotors.
- Thermal Energy – Extreme hot or cold.
- Pressurized Liquids or Gases – Include process lines, equipment hoses and utilities such as steam, air and water.

Hazard Assessment:

Certain job tasks may expose workers to potentially hazardous energy, such as the unexpected release of energy or stored energy while performing service, maintenance and installation activities. Servicing and maintenance activities are construction, installation, setting-up, adjusting, inspecting, modifying, lubricating, and cleaning will be assessed as follows:

Equipment or Machinery Inventory:

The hazard assessment starts with an evaluation of the equipment or machinery, which include stored, tagged or out-of-service equipment. During the review, the energy sources are identified along with any associated or potential hazards. The person who comprehend and use the equipment or machinery should be the most qualified person to assess the hazards. However, site specific personnel such as a supervisor or engineer may provide additional insight into hazard identification and the isolation process.

During this process, it may be determined that energy control systems are not needed. The safe operating practice will then be a form of engineering control of the hazardous energy, and that operational procedure will be documented for review.

This hazard assessment process will be implemented at all TURNER jobsites, and as part of the jobsite walk. This process will be followed to insure that job tasks have a safe isolation procedure or that lockout/tag out procedures is in place to protect the employees.

Completion of a Hazard Analysis/Safe Work Plan is required prior to a job task. The use of the Hazard Analysis for hazardous energy assessment must be implemented and supervised by a knowledgeable person. The energy control device and hazard mitigation shall be pre-planned prior to starting any work.

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Procedure Development:

The procedures required for the identified hazards are developed following a pre- described format, as required by OSHA regulation. This format requires that the same basic steps and the order in which they must be completed be followed.

Lockout - vs. - Tag out:

OSHA recognizes the need for flexibility in developing and implementing procedures. If an energy-isolating device cannot be locked out then a tag out system must be used. Caution must be used when tag out procedures are implemented for control of energy to ensure the workers' safety is not jeopardized. Tag out procedures must afford equal protection against accidental release of energy. It is critical that frequent audits and program surveillance be conducted to document the program's effectiveness. The ideal program implements both locks and tags on all lockable energy control devices.

Initiating Equipment Lockout/Tag out:

It is Turner's responsibility to verify this process. It is the Turner superintendent and subcontractor responsibility to ensure that Lockout/Tag out provides a maximum level of employee protection.

- A. Personnel performing the job task or qualified person shall pre-plan the work and identify specific and potential hazard to be locked, tagged or both.
- B. Notify affected employees that Lockout/Tag out is about to occur on a specific piece of machinery or equipment.
- C. Turner/Trade Partner/ Subcontractor will coordinate shutdown by reviewing details of the energy source(s), associated hazards and specific control procedures.
- D. Turner/Trade Partner/ Subcontractor will have oversight of isolating the equipment from the energy sources. Verify the shutdown of the machinery or equipment using the normal stopping or rundown procedures for the specific device.

There may be more than one energy source. Isolating the equipment may involve turning off the operating control valve, isolating a line or switching an electrical circuit breaker. It is very important to remember that only a qualified person can operate valves or isolate electrical panels. There are many ways of isolating energy sources and the isolation process can be hazardous due to the potential of residual energy or stored energy. Verify that all residual energy has been released.

- E. The subcontractor qualified representative shall apply the initial lockout or tag out devices to the energy isolating devices.

NOTE: If a tag is used for this purpose, the tag should read, "Danger Do Not Operate", and shall contain the following information:

- date tag is attached,
- legible name of the person attaching the tag,
- work description,
- work request number, if applicable,

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- other pertinent information,

The tag shall be made of sturdy, weather proof material and be so affixed that it is not likely to blow off or corrode in the work environment. The tag should be a standard size, shape and coloring.

For group tag out, the subcontractor supervisor(s) is responsible for the work group and shall place their names on the tag. When using locks, a tag shall be used to communicate who placed the lock, the type of hazard being controlled and the reason. If the device cannot be locked, then apply a tag to the device that states the same information.

Each employee working on the equipment may place a lock on the energy source disconnect.

- F. Subcontractor staff will release any potentially hazardous stored or residual energy. This may require rechecking bleeder valves for blockage, returning springs to their normal position or blocking hydraulic systems.
- G. Subcontractor(s) will verify that energy control measures are effective before starting operations. For example, turn switches or start buttons to the on position to ensure that power is actually isolated. Then turn them off again.

The subcontractor will provide the locks, tags, chains, wedges, key plugs or whatever hardware that is required to effectively control and isolate energy. Lockout/tag out devices shall not be used for any other purpose.

Restoring Locked Out/Tagged Out Equipment to Service:

Once the task is complete and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:

- Verify that the equipment is ready for use:
- Verify the machine or equipment and the immediate area to ensure that non-essential items have been removed and the machine or equipment components are operationally intact. This may include acquiring signed documentation that work is complete and all parties agree on closure.
- Verify that guards are in place and all connections are tight.

Equipment Without Positive Disconnects:

In the event that machinery or equipment does not have a positive disconnect, such as a circuit breaker, switch gear, etc., a procedure for that specific equipment shall be written, or a Hazards Analysis performed. This procedure shall address the identification of any hazards and the proper way to eliminate them. This procedure must be performed prior to the machinery or equipment being worked on.

Training:

Authorized Employee:

Only qualified employees may perform lockout/tag out procedures on machines and equipment.

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Training must include the following:

- Knowledge of the type and magnitude of energy sources present in the work place,
- The ability to recognize hazardous energy sources in the work place,
- An understanding of the means and methods of isolating and controlling various types of energy,
- Methods to verify that energy isolation is effective,
- All training and/or retraining must be documented, signed & certified.
- Retraining is required when there is a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced.
- The function of the Energy Control Program and the purpose of the procedures.

By definition, all employees would benefit from lockout/tag out training. Authorized employees need the greatest amount of training and skill assessment. Employees should receive training before their initial assignment and periodically thereafter. If the equipment or hazards change, or employee performance indicates a lack of skills or knowledge, then retraining will be required.

Other employees, as defined by the standard, are employees who do not fall in the authorized or affected categories. This may be occasional workers or visitors that may be in the area and possibly affected by lockout/tag out.

Additional Requirements:

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, the on-site employer and the outside employer shall inform each other of their respective lockout/tag out procedures.

Program Audits:

Lockout/tag out systems must have periodic audits done by authorized employees. The Hazardous Energy Isolation Audit form will be used to meet this requirement.

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Recommendations/Action Items (includes items immediately corrected)

Number	Recommendation/Actions Taken	Person Responsible	Expected Completion Date	Repeat

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MANAGER GO TO JAIL ACT	SEC 2, DOC 14A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-2

MANAGER GO TO JAIL ACT

PURPOSE:

The "Be a Manager, Go to Jail" Act in the California Penal Code and similar state and federal criminal liability laws impose penalties on corporations and individual managers if either

- 1) has actual knowledge of a "serious concealed danger" and fails to correct this condition and warn its affected employees within strict time limits, or
- 2) fails to enforce a published company safety policy about which employees have received training.

A "serious concealed danger" is a normal or reasonably foreseeable use of a product or practice that creates a substantial probability of death, great bodily harm, or serious exposure to an individual, and the dangerous aspects of which are not readily apparent.

Four points should be emphasized in this regard.

- 1) The serious concealed danger must be one that is subject to regulation by specified regulatory authorities.
- 2) The phrase "substantial probability" refers to the probability of serious injury resulting should an accident occur.
- 3) The phrase "serious exposure" covers exposure to hazardous substances that acutely or chronically may cause the requisite harm.
- 4) Whether the danger is readily apparent will be determined relatively, based upon the knowledge of the individuals exposed to the danger.

The purpose of this policy is to provide managers with knowledge of the law and ensure their conduct so as to avoid employee injury and illness and corporate and personal liability.

POLICY:

All Turner Construction managers shall strictly comply with this rule.

PROCEDURE:

In California, Managers must notify the Division of Occupational Safety and Health (DOSH) and warn affected employees in writing immediately if there is imminent risk of great bodily harm or death or in the absence of such risk, within 15 days after receiving actual knowledge of a "serious concealed danger." Alternatively, the employer can correct the condition within these time periods, unless there is another duty to report the incident. Further, managers must enforce company safety policies about which employees have received training.

A Manager is defined as a person having both management authority and significant responsibility for any aspect of a business.

The Act has the potential to be strictly enforced. Criminal penalties can be imposed simply for a failure to warn affected employees. This apparently includes employees of subcontractors. An employee need not be injured before liability is imposed. The penalties for violation of this Act can be assessed against individual managers as well as against a corporate employer. In California, the individual manager may be punished by imprisonment in the county jail for a term not exceeding one year, or a fine not exceeding \$12,000, or both; or by imprisonment in a state prison for 16 months, two, or three years, or a fine not exceeding \$25,000, or both a fine and

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imprisonment. A corporation is subject to the same imprisonment terms as the individual manager, but in addition may be fined up to one million dollars per violation. In states other than California, Managers shall follow any applicable rules and regulations.

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PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS	SEC 2, DOC 15	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-3

Personal Protective Equipment

Policy Statement

All employees of Turner Construction will be provided the personal protective equipment necessary to complete their jobs safely. Mandatory personal protective equipment required on the project site includes, but is not limited to, hardhat, safety glasses, gloves, reflective vests, and sturdy leather work boots at a minimum. A competent person onsite will determine necessary equipment. Each subcontractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart E – Personal Protective and Lifesaving Equipment in addition to the following guidelines.

Procedures

1. All Turner employees, subcontractor employees and visitors to project sites are required to wear a hard hat safety glasses that comply with ANSI Z87.1 gloves (**finger tips must not be cut off**), and work boots. Dark lenses are not to be worn inside of buildings, in enclosed areas or at night. Prescription eyeglasses and sunglasses that do not comply with ANSI Z87.1 are **prohibited**.

2. All Turner employees, subcontractor employees and visitors to project sites are required to wear hardhats that comply with ANSI Z89.1. Cowboy hardhats, aluminum hardhats, and bump caps are not permitted on Turner Construction Company Projects. **All hardhats shall display the contractor name and/or decal indicating whom the employee works for as well as the employee's name.** Employees exposed to electrical voltages of 600 V or greater shall wear hardhats that meet the requirements of ANSI Z89.2 Type Hardhats.

3. All Turner employees, subcontractor employees and visitors to project sites are required to wear work boots with sturdy leather uppers. Employees working with jackhammers, tampers and similar equipment are required to utilize metatarsal guards over their work boots.

4. Where employees are performing work that could potentially cause materials to become flying objects such as, but not limited to, chipping, welding, grinding, cutting, drilling and chiseling, they shall utilize a face shield in addition to safety glasses. A face shield shall be worn while using powder-actuated tools and drilling overhead. Additionally safety goggles may be required.

5. Where necessary, each employee shall use equipment with filter lenses that have a shade number appropriate for the work being performed for protection from injurious light radiation.

6. Where employees are performing work that could potentially expose them to harmful chemicals or micro airborne particles they may be required to utilize safety goggles and or a face shield. Please refer to manufacturer SDS for specific requirements. Goggles are required for abrasive actions in which dust can enter the eye.

7. Hand protection is required at all times unless the Job Hazard Analysis specifically states they are not required. The competent person for each contractor is expected to select the appropriate **cut resistant level glove** that mitigates the potential hazard presented to their employees.

8. Appropriate arm protection is required during operations where the arms are exposed to cut hazards (i.e. Kevlar sleeves, etc.). These operations shall be identified on the JHA/PTP.

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9. Contractors exposed to dust, fumes, and/or gases shall be provided with proper respiratory protection designed to protect against the particular substance encountered. The Contractor is solely responsible for the proper testing and training per OSHA standards, and to provide the appropriate equipment.

10. Workers exposed to roofing tar must wear long sleeved shirts and gloves. Workers who are directly exposed to hot tar must also wear a full apron and face shield.

11. Where an employee could be exposed to noise in excess of 85 dBA, their employer will provide hearing protection, which will reduce the noise to an acceptable level. If the noise levels are determined to cause an 8 hour TWA exposure greater than 85 dBA, the subcontractor shall be required to submit a detailed hearing conservation program to Turner. This program shall be approved prior to beginning work.

III. Roles and Responsibilities

1. Turner Management-

- a. Conduct hazard assessments to identify specific PPE for Turner Craft Workers and ensure adequate hazard assessments are conducted by the subcontractors.
- b. Supply necessary PPE and training to Turner staff.
- c. Monitor use of PPE by Turner staff and subcontractors.

2. Subcontractor Management

- a. Conduct hazard assessments to identify specific PPE for Contractor Workers and ensure adequate hazard assessments are conducted by their subcontractors
- b. Provide necessary PPE and training.
- c. Monitor use of PPE.
- d. Provide replacement PPE when needed.
- e. Identify any new hazards that would require the use of PPE.
- f. Be responsible for the assurances of PPE adequacy, maintenance and sanitation.

3. Subcontractor Employees

- a. Properly use and care for assigned PPE.
- b. Immediately inform supervisor if PPE is damaged or not effective.

Following is the “**Appropriate Glove for Type of Work**”.

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APPROPRIATE GLOVE FOR TYPE OF WORK

TYPE OF WORK	TYPE OF GLOVE	RECOMMENDED GLOVE
Energized Electrical Work (EEW)	Rated rubber gloves with leather protectors	Salisbury Insulated Rubber Glove-Class E 00 – E 2 (actual glove depends on voltage)
Cutting, pulling, pushing conductors	Cut-resistant gloves	Ansell 11-501 Hyflex CR+
Welding operations	Gauntlet type leather welding gloves	Radnor 64057601 (Tillman 1000)
Grinding operations	Tight fitting leather gloves	Valeo GMFS Mechanic's GMFS
Exposure to sharp edges and metals burns	Cut-resistant gloves	Ansell Goldnit 100% Kevlar 70-215
Utility knives	Cut-resistant gloves	HexArmor 9003/Best NitriPro 7066
Concrete work	Rubber or leather gloves	Pouring Best Chemmaster CHMS and Handling Ansell 80-100
Handling, loading & unloading any type of wood	Leather or leather over Kevlar	Ansell PowerFlex Plus 80-600
Material handling activity	Leather or cut-resistant gloves	HexArmor 9003/Best NitriPro 7066
Architectural demolition activity	Leather or cut-resistant gloves	HexArmor 9003/Best NitriPro 7066
Exposure to petroleum products	Chemical resistant gloves per the MSDS requirements	Ansell Snorkel 4-412 (Must check chemical resistant chart)
Exposure to hazardous materials such as solvents, paints, adhesives, etc	Chemical resistant gloves per the MSDS requirements	Best NSK-24 gloves (Must check chemical resistant chart)
Working around machinery	Tight fitting leather gloves should be utilized when hand protection is necessary around rotating equipment to prevent entanglement of gloves/hands in machinery	Tillman TruFit Goatskin 1470

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POWDER ACTUATED EQUIPMENT POLICY	SEC 2, DOC 16	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1

POWDER ACTUATED EQUIPMENT POLICY

Project workers using Powder Actuated Equipment to install material shall comply with the following:

1. Workers shall not operate powder actuated tools unless trained, certified and authorized for the tool being used.
2. Workers are required to submit proof of training or certification to Turner Construction. If the worker is unable to produce the proper or current certification, the employer may be required to provide training or retrain the employee in order to continue this work.
3. Spent individual shots and shot strips shall be disposed of properly. Misfired shot shall be handled per the manufacturer's recommendations and placed in a bucket of water for 30 minutes minimum prior to disposal. Improper disposal is grounds for zero tolerance disciplinary action.
4. Unfired shots shall be stored in a locked container when not in use.
5. Ensure that spall guards are always in place when required.
6. Ensure that the area below/behind where the fastener is being driven is clear.
7. Warning signs are required within 50 feet of the area where powder actuated tools are used at all entry and exit routes to that area.
8. Acknowledge before firing, especially in closed areas.
9. Loaded tools shall not be left unattended.
10. Workers not abiding by this policy will be subject to removal from the project under zero tolerance.

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PROJECT TRAINING & ORIENTATION REQUIREMENTS	SEC 2, DOC 17	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1

PROJECT TRAINING & ORIENTATION REQUIREMENTS

All personnel assigned to the Project are required to provide and attend the following:

1. Complete the Turner Safety, Environment and Health Orientation prior to beginning work on the job site. This process has been established to inform project personnel of the minimum safety requirements and precautions on the site. The information in this orientation is based on Turner Construction Company's current knowledge regarding specific physical hazard which may exist on the project site. (2.5 - 3 hours)
2. Attend a periodic Mass Safety Meeting as required by Turner Construction. (approximately one (1) hour)
3. Attend the All Jobsite Weekly Safety Meeting as required by Turner Construction (approximately 15-20 minutes)
4. Conduct Daily and/or Weekly "Toolbox" safety meetings conducted by each subcontractor, and provide to Turner Construction a sign in sheet of all who attended.
5. Recurrent training in regards to unsatisfactory safe work practices of an employee
6. Training designed to instruct employees in general safety and health work practices upon hiring, and throughout the scope of their employment, and when new programs, processes or job descriptions change, when new substances, processes, procedures, or equipment is introduced which represents a new or previously recognized hazard, and whenever a new unrecognized hazard is identified.
7. Safety meetings due to unsafe act and/or conditions as requested by Turner Construction Company.
8. Participation in the jobsite safety committee and jobsite Five Worker lunches.
9. Provide a Competent Person Trained and identified person on the jobsite when work is being conducted (OSHA 30, CPR/First Aid/AED, Storm Water)

Each employer on this Project is required to provide their employees adequate Safety and Health training for the specific work tasks to be performed by the employees. Each employer on this project is also responsible for ensuring that their employee's meet the minimum dress code required by Turner Construction.

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SAFETY VIOLATIONS POLICY	SEC 2, DOC 17A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-6

SAFETY VIOLATIONS POLICY

PURPOSE:

The purpose of this policy is to assist TURNER Supervisors in the uniform application of disciplinary action for violation of Health and Safety rules, and to facilitate a disciplinary system that is fair and consistent.

POLICY:

It is TURNER's goal to maintain a safe workplace for our employees. Therefore, violations of TURNER's IIPP policies and procedures and standard safe work practices will not be tolerated. Supervisors are responsible for and shall be held directly accountable for the safety performance of their subordinates. Supervisors must accept the responsibility of discipline for their subordinates. All employees have equal authority and responsibility to correct an unsafe act and/or condition. Any employee observing a policy violation, or unsafe act/condition, shall take immediate corrective action.

Only Project Safety Managers, Supervisors, Safety Managers or above may administer disciplinary action that involves discipline that exceeds an oral warning. Subordinates being disciplined shall be initially disciplined by his or her direct supervisor. Supervisors are expected to use reasonable judgment in applying the guidelines outlined below. Methods of discipline available to the supervisor consist of:

- a) Oral Warning with Documentation
- b) Written Warning
- c) Time Off Without Pay
- d) Probation
- e) Termination of Employment

All final decisions relating to disciplinary action shall be the responsibility of the Project Manager and Business Unit Safety Director. Whenever a decision has been made to take disciplinary action that requires more than a one shift suspension, the Manager shall be contacted prior to informing the involved employee. The Manager will advise the Supervisor of the proper method of administering discipline. If the Manager is not available, the Supervisor may suspend the employee and inform them to contact the Manager for an interview.

Introduction to Disciplinary Action Guidelines:

It is not possible to list all the potential violations of Health and Safety Rules. The following list is an effort to provide the Supervisor with an overview of potential violations and recommended progressive disciplinary action for employees violating Health and Safety rules. For violations that are not listed, use reasonable judgment and/or seek advice from the Project Manager, or the Business Unit Safety Director/Site Safety Manager, prior to taking action. Depending on circumstances,

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any violation can result in disciplinary action that is stricter or more lenient than the listed recommendations.

Remember to follow established company disciplinary action policies and procedures. The Safety Manager must document all events, interviews, witnesses etc. Any disciplinary action must be documented on the TURNER Safety Violation Form. The employee's past performance must be considered in determining appropriate level of progressive discipline, i.e. if the violation is a second or subsequent event, progressive discipline should be elevated. The form must be signed by the employee and others involved in the process. Should the employee refuse to sign, note that in the employee signature box. Forward copies of all documents to the Project Manager and Business Unit Safety Director.

Safety violations of Turner Construction Company or federal, state and local laws will result in disciplinary action to the worker and/or subcontractor in violation. Disciplinary actions will follow progressive steps: documented verbal warning, written warning, monetary fine, suspension from project for up to one week and removal from the project.

Disciplinary Action Matrix:

The ***Offense/Fine System*** (following) states the disciplinary action and monetary fine attached to each violation for subcontractor workers as well as Turner Construction Company employees.

The ***Safety Violation Written Warning/Fine*** (following) is to be used with each violation whether fines are attached or not.

Three safety violations involving one contractor will result in written communication by the Project Manager to the subcontractor. The subcontractor will be required to respond, in writing, stating the corrective actions that will be taken to correct the violations. If another similar violation is reported, the Turner Project Manager, Safety Director, Safety Manager, subcontractor Project Manager, Safety Director, Safety Manager will be required to meet, on-site, to discuss the corrective actions. Corrective actions may include removal of the worker and/or subcontractor supervision, company probation, suspension, or barring.

If the Turner Construction Company Project Manager is aware of any noncompliance with safety requirements or is advised of such noncompliance, the following may occur:

- A. Project Manager can deny any claim or request from the subcontractor for equitable adjustment for additional time or money for suspension work for the unsafe circumstances.

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- B. Any worker removed from a Turner project will not be hired to work for **any** other subcontractor working on a Turner site for a minimum of one year from the date of removal without specific approval of the Safety Director.

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DISCIPLINARY ACTION MATRIX

Focus Point /Incident	1 st Violation	2 nd Violation	3 rd Violation	NOTES
WORKER	Verbal & Written Notice	3 Days Off	Removed From Turner Projects For One Year	
WORKER'S DIRECT FOREMEN	Written Notice	Written Notice	3 Days Off	3 Worker Lay-offs = Removal From Projects For One Year
WORKER'S DIRECT SUPERINTENDENT	Written Notice	Written Notice	Written Notice to Sub/Prime Superintendent and President of Sub/Company	3 Worker Lay-offs = 3 Days Off For Superintendent
PRIME CONTRACTOR'S SUPERINTENDENT	Written Notice	Written Notice	Written Notice to President of Prime Company	3 Worker Lay-offs = 3 Days Off For Superintendent+

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OFFENSE/FINE SYSTEM

Offense	Turner Employees	Subcontractor Employees
1. No Hard Hat, Safety Glasses, Gloves, Or Work Boots	1 st Offense: Verbal Warning 2 nd Offense: removed from project for 1 week 3 rd Offense: Not Allowed To Work On Project For 2 Weeks Subsequent Offense: Discharge	1 st Offense: Verbal Warning 2 nd Offense: Written Warning Plus \$200.00 Fine 3 rd Offense: Not Allowed To Work On Project For 2 Weeks Subsequent Offense: Discharge
2. Remove Guardrail Without Adequate Replacement	1 st Offense: remove from project for 1 week 2 nd Offense: Discharge	1 st Offense: \$500.00 Turner Fine 2 nd Offense: Discharge
3. Remove Opening Protection Without Adequate Replacement	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
4. Unsecured Compressed Gas Cylinders	Turner To Confiscate And Remove From Site Plus \$500.00 Turner Fine	
5. Improper Storage of Flammable Materials	Turner To Confiscate And Remove From Site Plus \$500.00 Turner Fine	
6. No Fire Watch	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
7. Open Electric Panels	N/A	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
8. No Fall Protection or Inadequate Fall Protection	1 st Offense: Discharge	1 st Offense: \$5000.00 Turner Fine and Discharge
9. Late Reporting of Injures (Beyond 24 Hours)	N/A	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
10. Other Serious or Life-Threatening Violations	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
11. Other Non-Serious Violations	1 st Offense: remove from project for 1 week 2 nd Offense: Discharge	1 st Offense: \$200.00 Turner Fine 2 nd Offense: Discharge
12. Improper Rigging/Crane Use	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
13. No GFCI protection	1 st Offense: remove from project for 1 week 2 nd Offense: Discharge	1 st Offense: \$500.00 Turner Fine 2 nd Offense: Discharge
14. No protection from rebar (and other) impalement hazards	1 st Offense: remove from project for 1 week 2 nd Offense: Discharge	1 st Offense: \$500.00 Turner Fine 2 nd Offense: Discharge
15. Improper disposal/storage of Powder Actuated Tool cartridges	1 st Offense: remove from project for 1 week 2 nd Offense: Discharge	1 st Offense: \$500.00 Turner Fine 2 nd Offense: Discharge
16 Improper Ladder Usage	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge
17 Lock Out Tag Out	1 st Offense: remove from project for 2 weeks 2 nd Offense: Discharge	1 st Offense: \$1000.00 Turner Fine 2 nd Offense: Discharge

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RESPIRATORY PROTECTION	Sec 2, Doc 17AA	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-3

RESPIRATORY PROTECTION

I. Policy Statement

Turner Construction Company is committed to maintaining an injury and illness free workplace and will make every effort to protect employees from harmful airborne substances.

This will be accomplished through engineering controls such as ventilation or substitution with a less harmful substance or through administrative controls limiting the duration of exposure. When these methods are not adequate, Turner will provide training, fit-testing, medical surveillance, and proper respirators to allow Turner employees to breathe safely in potentially hazardous environments.

Turner recognizes that respirators have limitations and their successful use is dependent on an effective respiratory protection program. Our full Respiratory Protection Program is designed to identify, evaluate and control exposure to respiratory hazards and to provide for the proper use, care and maintenance of respiratory equipment. Each Business Unit affected must oversee a written respiratory program. Prior to implementation the Business Unit Safety Director shall approve program elements.

This program is designed for Turner Construction Employees. Subcontractors are required to submit and have approved by Turner their company's respiratory protection program prior to start of work. Compliance with this policy applies to filtering face-piece respirators (dust masks) as well.

All programs shall meet or exceed Federal, State, and Local regulatory requirements.

II. Program Elements

1. Highlights of a Business Unit Specific Program are to include the following:
 - a) Program Administration
 - A formal annual audit of the Respiratory program is required for all companies who actively using respirators. A Respirator Program Evaluation Worksheet should be used to document the evaluation and to record recommended changes.
 - b) Workplace Exposure Assessment & Ongoing Surveillance
 - Exposure assessment is critical in identifying harmful airborne contaminants, their extent and magnitude and how to control them.
 - Turner Project Staff (TPS) must make every effort through evaluations and training to ensure that employee exposure does not exceed permissible concentrations
 - Results of these evaluations will be summarized and a record maintained in the jobsite project files. Additional evaluations are necessary if

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exposures change due to new materials, process changes or other conditions increasing the degree of employee exposure. Copies of all results shall be sent to the Business Unit Safety Director who shall maintain an archive for 30 years for all Turner employees evaluated.

- Subcontractors shall provide proof of exposure assessments, training, and medical surveillance for their employees prior to performing work with any material that may require respiratory protection.
- Subcontractors may not perform any work with chemicals or materials that may cause a respiratory hazard or nuisance odor for Turner Employees, other Subcontractors, or the general public without scheduling the work with Turner. Examples of such activities include applying hazardous paints or coatings; saw-cutting or grinding concrete, applying spray on fireproofing.

c) Respirator Selection

- In those instances where engineering and administrative means do not achieve the desired control, respirators must be worn. Different types of respirators are available for a variety of applications. Turner must ensure that the proper NIOSH/MSHA approved respirator is selected and used for the kind of work being performed and the hazards involved.
- Respirator selection information must be completed to document the selection process.

d) Evaluating Respirator Wearer Health Status

- Even with appropriate equipment and adequate training provided, an employee's health status must be considered before allowing respirator use. The wearer's physical and medical condition, duration and difficulty of the tasks, toxicity of the contaminant and type of respirator all affect an employee's ability to wear a respirator while working. Therefore, Turner must ensure that each employee's physical ability to wear a respirator is evaluated.
- Each respirator wearer will be given a medical evaluation. The project will make appropriate arrangements with a proper medical organization to perform the evaluation. The Medical Evaluation and Work Restriction report must be completed for each individual.

e) Respirator Fit Testing & Assignment

- After selection of the appropriate type of respirator and verifying the employee's ability to work while wearing a respirator, Turner will ensure that a qualitative fit test is conducted to choose the best fitting face piece and determine the specific brand, model and size for each employee. The Qualitative Fit Test Record form will be completed. The form will record test results and document respirator assignment.
- Quantitative fit is the preferred alternative to qualitative fitting. Although it requires specialized equipment and trained personnel, some exposures require a quantitative fit test.

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f) Training

- Once the employee is fitted with the correct respirator for the task, that employee must be thoroughly trained in the need, use, limitations, inspection, fit checks, maintenance and storage of the equipment. This training may be initiated during the fit test.
- The manufacturer of the equipment provides detailed instructions for use and care of the respirator, and this information is to be used in the training. The Respirator User Training and Education Form is to be used as a guide and record of training received.

g) Record keeping

- Turner must document each major component of the program to verify that each activity has occurred and evaluate the success of the program to satisfy regulatory requirements.
- These records include the written program, exposure determination, respirator selection, physical status evaluation, fit testing and respirator assignment, training form and program assessment.
- All records that involve Turner employees must be sent to the Business Unit Safety Director and archived for a minimum of 30 years.

A comprehensive sample of the Turner, Asbestos, Lead, Silica and Respirator Management Program is available in Appendix H of this manual.

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SANITATION POLICY	SEC 2, DOC 17B	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1

SANITATION POLICY

Purpose

To be in accordance with Title 8 Section 1526 & 1527:

Washing stations must be provided so that there is **a minimum of one washing station for each twenty employees or fraction thereof, for each gender.**

- Toilets shall be maintained in a clean and sanitary condition, with adequate supplies of toilet paper
- Toilet facilities shall be designed and maintained in a manner which ensures privacy
- Hand washing facilities shall be provided and maintained in a clean and sanitary condition, with adequate supplies of water, cleansing and drying materials
- Have an adequate supply of water for effective washing.
- Provide soap or other suitable cleansing agent.
- Provide single-use towels or a warm-air blower.

The washing station must be located so that any time a toilet is used the user can readily wash.

Where workers are engaged in activities where they may come into contact with hazardous materials (e.g. painting, coating application, hazardous material handling, demolition activities, lead materials handling, etc.)

The amended rule includes special provisions when washing stations are provided in association with portable toilets. These are:

- Provide a sign or equivalent notice indicating that the water is intended for washing.
- Locate the washing station outside of the toilet facility and not attached to it, except on worksites where there are less than 5 employees and only one toilet facility is provided, in which case the washing station may be located inside of the portable toilet room.

Workers should make all attempts to maintain cleanliness of toilet and hand washing facilities.

Graffiti on toilet walls is not permitted: workers found defacing toilet facilities will be subject to disciplinary action, up to and including removal from the project.

Owner controlled bathroom facilities should not be utilized unless authorized by Turner Construction.

Turner project management should designate the locations of toilet and hand washing facilities with the consideration of accessibility to the workers. Where practical, toilets and hand washing facilities should be no further than 200 feet from work areas and no more than two flights of stairs from working area.

No Half wall toilet (port-a-john) or those with urinals on the outside will be allowed on any Turner project.

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SCAFFOLDING PROGRAM	SEC 2, DOC 18	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-4

SCAFFOLDING PROGRAM

Policy Statement:

Each Contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart L – Scaffolds, in addition to the following guidelines.

Procedures:

To establish appropriate expectations when working with scaffolding and non-motorized raised work platforms.

This policy will apply to all work performed by Subcontractor employees including, but not limited to, the following activities: construction, installation, demolition, remodeling, relocation, refurbishment, testing, servicing or maintenance of equipment or machines, and at other times when scaffolding or non-motorized raised work platforms are required.

This summary is intended to inform workers of the basic safety requirements associated with scaffolding and non-motorized raised work platform use.

Fall Protection:

- Conventional fall protection is the preferred method of protection if feasible when working on scaffolding at heights above six feet, without adequate handrails, and mid-rails.
- All personnel using fall protection must be properly trained.

General

- Qualified persons must install all scaffold/work access platforms.
- A competent person is required to inspect the scaffold and its components for visible defects before each work shift and after any occurrence that could affect the scaffold's structural integrity.

Do not change or remove any scaffold members unless authorized.

I. Policy Statement

Each Contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart L – Scaffolds, in addition to the following guidelines.

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Usage

- The employer shall have each employee who performs work on a scaffold or non-motorized raised platform trained. This training shall be in accordance with CFR 1926.454.
- All scaffolds must be erected level and plumb, on a firm base and kept clear of debris
- Be sure you know the safe working loads on all scaffolds.
- Do not alter any scaffold member by welding, burning, and cutting, drilling, or bending.
- Do not rig from scaffold handrails, mid-rails, or braces.
- Do not climb on, or work from, any scaffold handrail, mid-rail, or brace member.
- The preferred method is to prevent any employees from riding on rolling scaffold when it is being moved.
- Prior to use, inspect scaffold to insure it has not been altered and is in safe working conditions.
- Erected scaffolds and platforms should be inspected continuously by those using them.
- Exercise caution when entering or leaving a work platform.
- Do not overload scaffold. Follow manufacturer's safe working load recommendations.
- Do not jump onto planks or platforms.
- Do not use ladders or makeshift devices on top of working platforms to increase the height or provide access from above
- Climb in access areas only and use both hands.
- Pump Jack Scaffolds
Cannot be used on Turner projects unless approved by the BUSD.

In the event this method is infeasible or presents a greater hazard, employees shall be allowed to ride on rolling scaffolds, granted the following conditions exist:

- The surface on which the scaffold is being moved is within 3 degrees of level, and free of pits, holes, and obstructions; (fully intact raised metal floor tile meets the aforementioned requirements).
- The height to base width ratio of the scaffold during movement is 2 to 1 or less, unless the scaffold is designed and constructed to meet or exceed nationally recognized stability test requirements such as those listed in paragraph (x) of Appendix A, 1926.452 (w)

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- Outrigger frames, when used, are installed on both sides of the scaffold;
- No employee is on any part of the scaffold, which extends outward beyond the wheels, caster, or other supports.
- Before a scaffold is moved, each employee on the scaffold shall be made aware of the move.
- Rolling scaffold with personnel on them will not be moved in any single distance greater than 20 ft.
- Two personnel will be required one at each end to move a scaffold while any personnel are riding.
- Personnel riding rolling scaffolding will either sit down or crouch for the duration of the move.

Scaffold Planking Load Requirements:

All planking shall be 2" (nominal) selected for scaffold plank use as recognized by grading rules approved by American Lumber Standards for the species of wood used. The maximum permissible spans for 2" x 9" (rough)

WORKING LOAD Lbs. /SF	PERMISSIBLE SPAN feet
-----	-----
25	10
50	8
75	7

- a) The maximum permissible span for 1-1/4" x 9" or wider plank of full thickness is 4' with medium loading of 50 lbs. per sq. ft.
- b) Platform planks shall be laid with no openings more than 1" between adjacent planks or scaffold members.
- c) All planks or platforms in a continuous run shall be overlapped (minimum 12") or secured from movement.
- d) Wood scaffold planks, unless cleated or otherwise restrained at both ends, shall extend over their end supports not less than 6" or more than 12".
- e) The use of commercially available aluminum and wood walk boards with positive locking devices is an excellent alternative.

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SCAFFOLDING PROGRAM	SEC 2, DOC 18	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-4

f) Engineered scaffold systems may have plank lengths that exceed the above table. Note: The table is taken from the non-mandatory Appendix of Subpart L.

Definitions:

- **Competent person** one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.
- **Qualified person** one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject mater, the work, or the project.

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SITE DELIVERY POLICY	SEC 2, DOC 19	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1

SITE DELIVERY POLICY

Prior to exiting the cab of all vehicles, the driver is required to:

- Turn off the vehicle's engine (unless required to remain running to protect the integrity of the load and there is no alternate means to protect the load);
- Engage the parking brake and air brakes;
- Leave automatic transmission in park; or
- Leave manual transmission in the lowest gear;
- Remove the keys from the vehicle's ignition and keep them in their possession;
- Ensure proper PPE is worn (safety glasses, hard hat, long pants, reflective vest if applicable, gloves, and sturdy leather work boots).

Prior to loading/unloading of the vehicle, the following are required:

- Wheel chocks or other approved restraining devices are required to be used for every vehicle being loaded or unloaded by crane or forklift (chock both the front and the back of the wheel);
- Ensure all loads are stable prior to movement.
- If a fork lift is required, ensure that the driver has been properly trained or certified to operate.

General Site Requirements:

- Seat belts are to be worn in all vehicles.
- Never exceed the designated passenger limits for any vehicles.
- Drivers on site must obey all posted traffic signs and be alert for other vehicles and pedestrians.
- Stop for pedestrians on the crosswalk, and areas throughout the project as they have the right of way.
- Driver will coordinate with the Sub Contractor or Turner Construction to learn of onsite hazards or obstructions to ensure the delivery vehicle may travel safely on site.
- Vehicles must not block emergency egress, vehicle access (i.e. gates), or electrical panels. All vehicles in violation will be towed at the owner's expense.
- All delivery vehicles are required to have a back up alarm and must use a ground guide when backing on site or where the drivers view may be obstructed.
- Park in designated parking area only
- Dispose of all trash accordingly
- Do not leave packaging material, pallets or any other debris on the ground

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STEEL ERECTION POLICY	SEC 2, DOC 20	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-2

STEEL ERECTION POLICY

Policy Statement

Each contractor working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart R – Steel Erection, in addition to the following.

Procedures

General Site, Erection and Construction Sequence Requirements:

- a) The controlling contractor must provide the steel erector written notification that the concrete or mortar in masonry walls has reached either 75% of the intended minimum strength or sufficient strength to support the anticipated loads during steel erection.

Steel Erection Phase:

1. During the steel erection phase, Subcontractors shall comply with OSHA Subpart R and the Turner Construction Company policy of 100% fall protection when employee is exposed to a fall potential of 6 feet or greater, without fall restraint protection. The use of a beam shadow anchor or equivalent is required and shall be used by all employees including connectors.

2. The running length of wire rope protection, when used for perimeter protection, shall not exceed two bay widths or 24 feet, and will be equipped with support stanchions every 8 feet to maintain required deflection pursuant to OSHA and Turner standards. ½" cable is recommended, no cable smaller than 3/8" is allowed to be used. A turnbuckle shall be installed every (3) three bays or 100', whichever is less for maintenance of the perimeter protection to keep tight: a minimum of 3 Crosby clamps will be installed. The use of lap joints is prohibited.

Multiple lift rigging may be performed when the following conditions are met:

- A multiple lift rigging assembly is used.
- A maximum of (3) three members are to be hoisted per lift.
- Only beams of similar structures are hoisted per lifted.
- All employees engaged in the activity have been trained in the specific procedures identified in OSHA Subpart R, 1926.761.

3. All leading edge work shall be in accordance with CFR 1926 Subpart M.

A qualified person shall train all exposed employees in the recognition of fall exposures and use of fall protection systems and equipment.

A Fall Protection Plan shall be prepared and submitted to Turner. This plan shall be updated bi-weekly for the duration of work on site.

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Site Layout and Construction Sequence:

The steel erection contractor shall not erect steel unless it has received written notification that the concrete in the footings, piers and walls or the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method of field-cured samples, either 75 percent of the intended minimum compressive design strength or sufficient strength to support the loads imposed during steel erection.

All hoisting operations in steel erection shall be pre-planned and documented to ensure that applicable safety requirements are met.

Structural Steel Assembly:

Pre-planning shall be conducted and documented for landing deck bundles and installing the perimeter protection for interior/exterior fall hazards.

Column Anchorage:

1. All columns shall be anchored by a minimum of 4 anchor rods (anchor bolts).
2. All columns shall be evaluated by a competent person to determine whether guying or bracing is needed; if guying or bracing is needed, it shall be installed.
3. Anchor rods (anchor bolts) shall not be repaired, replaced or field-modified without the approval of the project structural engineer of record. Prior to the erection of a column, the controlling contractor shall provide written notification to the steel erector if there has been any repair, replacement or modification of the anchor rods (anchor bolts) of that column.

Turner Construction Company recommends each respective Subcontractor associated with Steel Erection to remain current in terms of newly revised standards. Turner Construction safety requirements meet or exceed Cal/OSHA and Fed/OSHA requirements. Where conflict exists between Turner and any OSHA requirement, the more stringent requirement shall apply.

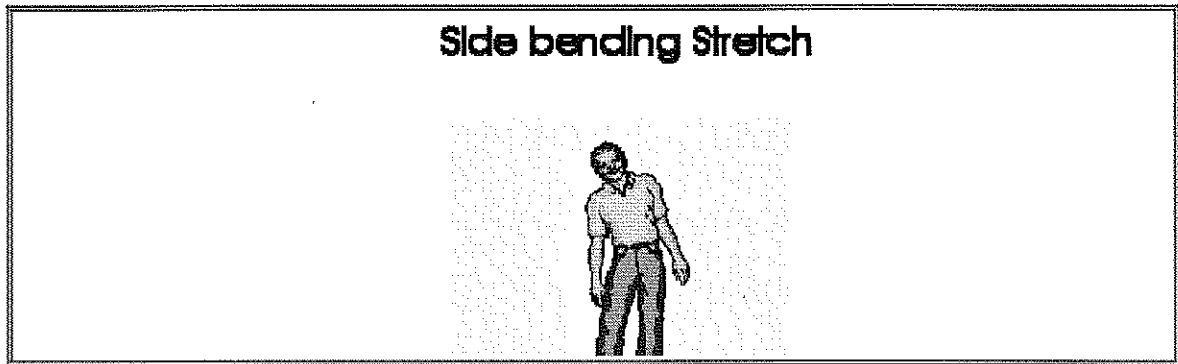
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STRETCH & FLEX	SEC 2, DOC 20A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-3

STRETCH & FLEX

Scope and Application

In an effort to reduce the number of soft tissue injuries, each Trade Partner/Subcontractor shall develop and provide to Turner Construction a plan to implement a daily stretch and flex program. The program must take place daily at the start of the shift. The Turner Construction's Project Safety Manager/Superintendent will periodically attend the Contractor's meetings to ensure their effectiveness. Below is a sample Stretch and Flex program that might be used; however, a final program and plan must be submitted by each Trade Partner/Subcontractor to Turner Construction.

NOTE: Discontinue any stretches that cause pain.

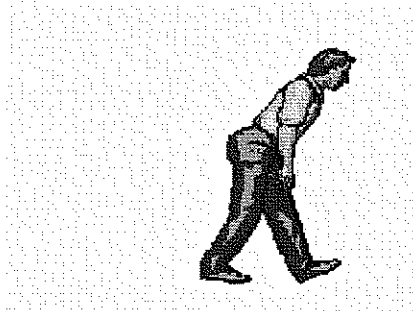


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STRETCH & FLEX	SEC 2, DOC 20A	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-3
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Hamstrings Stretch



Step forward with one foot.

Raise toes, straighten knee, bend forward from the waist. Hands on your thigh.

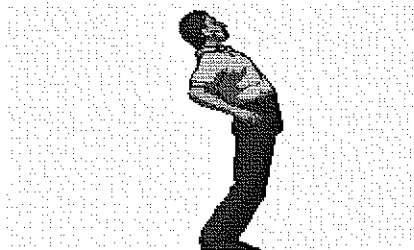
It is very important to keep your back straight, look straight ahead, not down at the ground.

There should be a slight arch in the low back.

Stop when you feel a stretch in the back of your thigh. Hold for 15 seconds. Repeat 8 times, each side.

Discontinue this exercise if you feel any discomfort in your low back.

Back Extension



Stand with feet shoulder width apart.

Put hands on hips. Move your hips forward and lean back.

Hold for 8- 10 seconds.

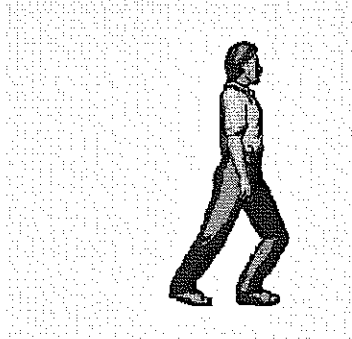
You may feel a slight pressure in the center of the low back.

This pressure should go away when you straighten up.

Stop if you feel pain in the low back or pain shooting into your buttocks or leg.

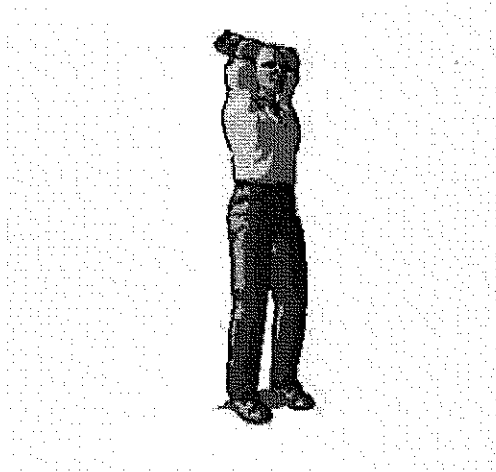
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Achilles Stretch



Step forward, put your weight on the forward foot.
Forward knee slightly bent. Move your body (hips) forward.
Press down with the heel of the back foot.
You should feel the stretch in the back of the back calf.
Stop when you feel the stretch. Hold for 15 seconds.
Repeat 3 times, each side.

SHOULDER STRETCH



Raise arms overhead. Grab elbows. Pull elbows side to side. Keep body stable.

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SUBSTANCE ABUSE POLICY	SEC 2, DOC 21	APPROVED BY D. McGee/ K. Wunder	DATE 10/25/13	REV. # 0	PAGES 1-5

SUBSTANCE ABUSE POLICY

Position Statement On Substance Abuse

TURNER CONSTRUCTION COMPANY has a responsibility to provide a safe and productive workplace for all its employees and subcontractors (and their subcontractors); and a responsibility to the general public and our associates, to ensure that their safety and well-being is protected. A substance abuse policy has been established to provide Turner Construction Company with a means to meet these responsibilities.

NOTE: In this policy, the term "substance abuse" is used to mean the use/abuse of or dependency on illegal drugs, alcohol, or drugs that can be prescribed legally but are used in a manner inconsistent with the prescription. Employees are required to notify their supervisor if taking any prescription medications before starting work.

The Substance Abuse Policy includes consideration for the following types of testing: pre-placement, post-accident, aberrant behavior, during routine medical procedures, for reasonable cause, and random testing.

A third party administrator will conduct this program in a strictly confidential manner. Your cooperation and support will make Turner Construction Company a better place to work.

SUBSTANCE ABUSE POLICY

While TURNER CONSTRUCTION COMPANY (the Company), has always strived to provide the safest possible work environment for employees, the growing problem of substance abuse (drugs and alcohol) within society in general, and the work environment in particular, necessitates the adoption of a written Substance Abuse Program. A high percentage of all work related accidents could be attributed to substance abuse. Therefore, effective immediately, our long-standing policy prohibiting the use or influence of drugs or alcohol, or the presence of their metabolites in an employee, on a jobsite, on Company property or while conducting Company business will be reinforced and directed by this policy statement.

NOTE: 1) All employees of Turner Construction Company, sub contractors (and their sub contractors), consultants and vendors shall read, understand, and abide by the

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contents of this policy. 2) This substance abuse policy will not apply to Turner CM jobsites unless specifically requested by the client(s) and approved by Business Unit management.

***Do not bring drugs or alcohol to the workplace.** The possession or sale of drugs and/or alcohol within the Company's properties, vehicles, offices, and surrounding areas (e.g. yards, parking lots, etc.) will be grounds for immediate termination and legal authorities will be notified. Prescription drugs are excluded from coverage by this paragraph only if a current authorized prescription from a physician is in effect and available to the Company. Over-the-counter drugs are not covered by this section.

***Do not use drugs or alcohol if they (or their metabolites) will still be in your system while you are at work.** The use of alcohol or drugs at any time, such that it could adversely affect the safe performance of your job, will be grounds for disciplinary action. If you are taking a prescription or over-the-counter drug, you are personally responsible for confirming with your physician that you may safely perform any job duties while taking such items. If you are taking a legal substance that could impair your safe work, you must advise your immediate supervisor, who may assign you to non-hazardous duties or send you home. The Company expects every employee to report to work without alcohol or drugs in their system, and to remain that way while at work.

Employees are warned that some drugs, especially marijuana, remain in the system for extended periods. Use of such drugs, even away from the workplace, may lead to a violation of this policy. Applicants and employees should also be aware that certain over the counter consumable products (i.e. hemp products), may cause a substance abuse screen to have a positive result, and that the use of such products is not a medically valid reason for a positive substance abuse screen.

TESTING PROGRAM

An integral part of this Substance Abuse Policy will be testing for all Turner Employees, subcontractors and their subcontractors. Saliva, Breath or Urinalysis will be used as the method(s) of determining the presence or absence of alcohol or drugs in a person's body. Testing will be required for pre-placement, for cause, on a random basis, and otherwise as described herein.

Samples for pre-placement, random, and other testing shall be submitted immediately on request. Substance abuse testing and time required for testing for Turner Construction Company employees will be paid for by the Company. Sub contractors (and their sub contractors), vendors and consultants will be financially responsible for all costs associated with drug screening for their employees. The Company, for whom the worker is assigned to, will arrange for transportation for testing purposes. Any employee who refuses to be tested will be removed from the site. Any employee who tests non-negative will be removed from site.

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Employees are required to produce a valid urine specimen at the collection facility. A valid urine specimen is considered to be free of adulterants or additives, and meet laboratory guidelines for specific gravity and creatinine levels and be considered acceptable for full test sensitivity.

Any person tested under this policy will have the opportunity, in a confidential setting, to provide information that may be relevant to the results of the test, including identification of currently or recently used prescription or non-prescription drugs or other relevant medical information. Tested individuals have a right, on request, to obtain the written test results.

SUBSTANCES COVERED BY THE TESTING PROGRAM

The Company's testing program will determine the presence of any or all of the following substances and their metabolites in the body: amphetamines, cannabinoids, cocaine, opiates, and phencyclidine. The Company is concerned about the abuse of prescribed and over-the-counter medication as well as illegal drugs and alcohol. Consequently, the testing program and covered substances may be modified to reflect changes in drug issues.

PRE-PLACEMENT TESTING

All prospective employees (Turner and all Turner subcontractors) will be tested for the presence of drugs, and their metabolites in order to be eligible for employment. Positive results, for other than verified prescriptions for the applicant, will be grounds for rejection. All screens are processed through Turner Construction Company's vendor for substance abuse screening no more than two (2) weeks prior to the start of the individual employee's work.

RANDOM TESTING

Random testing may be imposed on any employee at any time. This testing process is necessary to protect the safety of all employees and to assure the integrity of this policy and to comply with statutory regulations where they apply.

FOR CAUSE TESTING

Tests for drugs, alcohol, and their metabolites will be required when:

- An employee's behavior is out of character or matches an accepted profile of being under the influence of alcohol or drugs.
- An employee is subject to an injury requiring medical attention.
- An employee has been involved in a vehicular accident on company time or in a Company vehicle.
- All testing FOR CAUSE will occur immediately or as soon as reasonably possible after the incident requiring it, taking into consideration the health and wellbeing of the effected individual(s).
- An employee being tested FOR CAUSE may be suspended pending the test results.

Employees in this situation are considered potentially impaired and will be treated accordingly. Employees obviously affected by any substance will not be allowed to operate

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a motor vehicle. Safe transportation will be arranged by the potentially impaired employee's employer. Employees refusing this arrangement will be immediately reported to the local law enforcement authorities.

OTHER TESTING

The Company reserves the right to test Turner and all subcontractor employees subject to this policy for reasons other than those listed above, such as; annually as a Company wide process, medical reasons, decline in overall safety performance, high accident rate in specific crews, specific accusations, when performing certain tasks, or other reasonable considerations.

Laboratory Testing Procedures

Procedures for sample collection, storage and transportation of specimens are specifically followed to prevent the possibility of contamination, adulteration or misidentification. Because of the consequences of a non-negative test results on employees, the Company will employ an accurate testing procedure. Collections will be performed under reasonable and sanitary conditions. Labeling of specimens and internal chain of custody procedures shall be practiced. On-site screens that test non-negative will be confirmed by a qualified and certified, federally approved, state approved, and Substance Abuse and Mental Health Services Administration (SAMSHA), approved laboratory. All laboratory procedures are performed in accordance with scientifically accepted analytical methods and procedures. It could take up to 72 hours, but usually 24 hours or less, for the specimen to finish the confirmation process. A final determination will be made only after the Gas Chromatography/Mass Spectrometry (GC/MS) process is complete. Since the substance abuse screening program is first and foremost a safety program, the 'pending' individual will not be allowed on-site until this process is complete. Once the final determination has been made, the General Contractor (and sub contractor, if applicable), will be notified by third party administrator.

RETESTING

Applicants or employees who test positive for drugs or alcohol, and who believe the test results are incorrect, may request a retest of the original specimen at his/her own cost. The retest will be performed by an equally qualified laboratory. If the retest is negative, a third testing of the original specimen will be done by a third laboratory to confirm or deny the previous test results. A toxicologist will be available to review all data for a final determination. Portions of the original specimen are available for two years at the laboratory where the sample was originally analyzed.

Voluntary Assistance

Any employee who has a problem with drug or alcohol abuse is encouraged to come forward prior to being tested. Since substance abuse is a major element in the cause of accidents, the Company cannot allow employees to work with the presence of, or potential influence of illegal substances, certain prescription medications, or alcohol. The merits of each case will dictate any actions taken. Employees who come forward may be given the

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opportunity to participate in a substance abuse rehabilitation program. Any employees who test positive will be subject to disciplinary actions and/or terminated. Employees retained, or reinstated will be subject to increased testing outside of the specifications in this policy, and will be required to sign an agreement to that effect upon return to work status. No guarantee to position, title, compensation or benefits is guaranteed.

Other

TRAINING

Training of individual managers, supervisors, and employees is the responsibility of the sub contractors, consultants, and vendors. It is also the responsibility of the sub contractors, consultants, and vendors to assure that each of their employees understands this policy and all of its conditions and requirements.

SEARCH

The Company's management and its agents have the right to search its offices, jobsites, and surrounding areas for drugs and alcohol. Any vehicle, lunch box, and other possessions brought onto Company property or areas are subject to search.

CONFIDENTIALITY

All employee information relative to this program is confidential and will be maintained accordingly by the third party administrator and the Company. Questions or concerns regarding substance abuse screens collected under this policy must be addressed within 1 calendar year from the date of collection.

QUESTIONS

If you have questions concerning this policy, please discuss them with your supervisor. An outside consultant is also available to discuss the policy with you; contact the Company for the third party administrator contact information. It is the responsibility of every employee to understand and abide by this policy.

POLICY REVISIONS

The Company reserves the right to modify this policy as needed to meet the requirements of our employees, the Company and statutory rules or laws. All employees, sub contractors, vendors and consultants will be informed of such changes in a timely manner.

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PURPOSE

The purpose of the Turner Construction Company Waste Water Management Policy is to support the requirements of the site specific Storm Water Pollution Prevention Plan (SWPPP), Storm Water Management Plan (SWMP) and/or Project Pollution Control Plan. These requirements have been established to comply with National Pollutant Discharge Elimination System (NPDES) General Permit, applicable federal, state, and local laws, regulations, standards and requirements; and project and site specific Turner Construction Company standards and requirements.

For the purposes of Storm Water Management, construction is considered to be engaging in industrial activity (except for operations that result in a total disturbed surface area of less than 1 acre, which are not part of a larger common plan of development).

APPLICABILITY

The Waste Water Management Plan applies to all Turner Construction Company subcontractors involved in activities that result in the generation of wastewater or the discharge of storm water associated with these activities at the project site. It is the expectation that each project will follow the site Master Plan and incorporate any federal, state, laws, property sale agreements (e.g. warranty deeds) and/or local ordinances as necessary into the project (e.g., tree mitigation measures, endangered species concerns, storm water easements etc.).

Each Subcontractor will be responsible for the wastewater from construction and build-out related activities that are contractually their responsibility. Turner may be contractually responsible as the "operator" for the management of all storm water discharges in compliance with the provisions of the Clean Water Act at the project site.

In the event of conflict between Turner requirements, contract documents and/or the SWPPP, the documentation submitted for the NPDES permit shall apply.

Spill Prevention Control Policy

Policy Statement

As the leader in the construction industry, Turner Construction Company is committed to the prevention of unwanted chemical releases, specifically related to potential entrainment into ground water sources. It is our intention to provide and maintain the best possible work conditions to ensure the minimization of potential spills. This will be achieved through the continued implementation of our Spill Prevention Control Plan (SPCP). By promoting safe and efficient production and by minimizing all incidents that could increase cost to the project and potentially impact the environment. It is our belief that with complete cooperation from all workers, the SPCP program will continue to achieve commendable results.

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This Spill Prevention Control Plan has been prepared by Turner Construction Company to assist projects in managing hazardous substance spills including, but not limited to, oil and other petroleum products. The SPCP is to be used to inform contractors of the potential hazardous materials, contamination prevention measures, emergency spill response, and responsibilities associated with hazardous materials during construction.

II. Procedures

1. Spill Prevention & Containment Measures

The number one defense against a spill is prevention. The easiest way to prevent spills is to: conduct proper vehicle maintenance and inspections; never place vehicles or equipment in or near sensitive environments; store all materials in protected and approved areas; store all chemicals in approved and labeled containers and follow the OSHA hazard communication standard / GHS; and train workers on the proper storage, handling and treatment of all hazardous chemicals on the project.

This section identifies the types of secondary containment or diversionary structures that will be used to handle spill sources.

a) Contaminated Soil: An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill pad placed beneath potential leak sources. An undetected leak from parked equipment will be contained within the equipment staging area by removing the soil to a drum using a shovel or by installing a temporary berm.

b) Equipment Staging Area and Material Staging Area: An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill pad placed beneath potential leak sources. An undetected leak, from parked equipment will be contained within the equipment staging area by removing the soil to a drum using a shovel or by installing a temporary berm.

c) Fuel Staging Area: A spill during fueling operations will be contained within a spill pallet for small container handling or secondary containment berms. The transfer of fuel into portable equipment will be performed using a funnel and/or hand pump and a bucket or containment pan will be placed directly underneath the fueling operation to prevent any incidental spills or drips. A spill response kit will be located near the fueling area for easy access. The spill response kit will include plastic sheeting, tarps, absorbent pads, Lite-Dri absorbent (or equivalent) and shovels.

d) Unknown soil and groundwater contamination: When contaminated soil is encountered, refer to the Environmental Policy section of the Safety, Health and Environmental Policy.

e) Underground pipelines: If a leaking underground pipeline is encountered, the leaking material will be contained within the excavation. Turner Project Staff will contact Risk Management immediately.

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Roles and Responsibilities

1. A project specific Spill Prevention Plan shall be developed and posted in the project Trailer prior to mobilization. A comprehensive sample Spill Prevention and Control Plan is available in Appendix C of this manual. This plan shall include the following:
 - a) Roles Responsibilities for Owner, Turner, Subcontractors, and Vendors.
 - b) Formal inspection protocol and archiving procedures.
 - c) Emergency procedures following a spill.
 - d) Spill Containment Equipment List & Sourcing information.
 - e) Local Emergency Response Contact Information.
 - f) Project Specific Hazardous Materials Communication.

2. The project specific Spill Prevention plan shall be communicated to all Turner Project staff and key subcontractor personnel.

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WEATHER PROTECTION – MOLD POLICY

This Weather Protection policy outlines the steps that will be taken during the construction of the project to eliminate water intrusion into the building and to control the water in surrounding site areas.

The plan is broken down into the following areas:

- General
- Site
- Exterior Wall
- Roof
- Interior
- Mold Prevention

Many of the action steps noted below have been incorporated into the subcontract agreements. The balance of the action steps will be funded from labor/material allowances included in the subcontracts, or as change orders to the direct cost line items.

General:

- Weather will be tracked from a site on the Internet. 10 day weather reports will be posted for all parties to review so that verbal and written warning of all weather will be handled properly.
- The weather protection measures/work put in place will be inspected and monitored by all field staff. Special inspections will be conducted when storms are predicted.
- A stockpile of visqueen and sandbags will be maintained on site.
- Where applicable, the subcontractor's weather protection plans will be reviewed and implemented, if not already included in this plan.
- Rental equipment accounts will be established ahead of time so that equipment is readily available. Some equipment (pump/hose) and tools will be purchased and stored on site.

Site:

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- The area immediately surrounding the building will be sloped away from the slab-on-grade so that water cannot flow into the building.
- The site storm drain system is installed and connected to the mains. Temporary catch basins, with gravel and sandbag protection, will be spaced throughout the site to drain the rain water.
- Exterior storage of vulnerable (drywall, wood, door frames, etc.) materials will not be permitted.
- Sandbags are placed and will be maintained at the site fence perimeter to channel surface water away from the site and into the storm drains.
- A stockpile of extra sandbags will be maintained.
- A mud slab will be placed, prior to setting of scaffold, between the Data Center building and any existing building. The area drains will be temporarily set at this elevation.

Exterior Wall:

- Windows, or other systems requiring caulking, are to be caulked/sealed as they are installed (vs. waiting for an entire bay/floor/elevation to be installed before starting caulking).
- The exterior closure assembly at the high bay plenum shall be a priority to avoid water infiltration. The CIP curb installation around the perimeter of the plenum opening shall defer roof discharge into building. A monolithic pour of the CIP curbs and roof deck is preferred. Extreme emphasis on completing the exterior framed wall and sheathing shall drive the ability to start the interior high bay plenum drywall.
- All mechanical openings penetrating the high bay plenum exterior wall will be temporarily enclosed with temporary window-like (wood frame/visqueen) inserts to avoid driving rain infiltration until final construction is installed and sealed.
- Exterior wall hold-out bays in the pre-cast assembly shall not prevent the roofing installation. As hold-outs are defined and required, a complete roof installation shall be required per the project schedule with temporary roof

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provisions to address the hold-out panels. Turner shall be responsible to provide final roof transitions at the hold-out panels once erected.

Roof:

- The roof drain risers will be installed as the concrete floors are placed, ahead of fireproofing if necessary, and will be tied into the storm drain system. The roof drains will be piped immediately after placement of the roof concrete decks. If necessary, the roof overflow/scupper system can be utilized to get water off the roof.
- The modified bituminous membrane roof system will be installed as soon as allowed by the manufacturer after the roof concrete deck is poured, prior to installation of the mechanical systems on the roof.
- All roof shaft openings, mechanical penetrations/openings, skylights, etc. will be covered with removable plywood and plastic sheeting. Concrete curbs will be installed around all roof openings and waterproofed.
- Any exposed portions of the exterior mechanical equipment will be protected during installation.

Interior:

- Drywall will not be stocked or installed until the exterior wall in the area of the work is in place and all adjacent/overhead openings (shafts, skylights, etc.) are covered. Turner will inspect and release drywall for stocking/installation on an area-by-area basis.
- At leave out bays for hoisting, manlifts, ventilation, etc., drywall is not to be stocked or installed where it could possibly get wet.
- Interior water sources, such as temp. hosebibs or cleanout barrels will not be installed inside the building.
- Pipe testing operations that require water will be monitored and any spillage cleaned up immediately. Air will be utilized for testing where feasible.
- Moisture resistant shaft wall will be installed.

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- All through the floor shafts and penetrations will be surrounded by a CIP curb so that in the event water does get into the building, it does not get into the shaft or floor below.
- When/if drywall gets wet it will be removed. The source of the water will be identified and contained prior to further drywall installation.
- When/if the floors get wet, they will be dried up immediately (squeegee, fans, mops, etc.).
- All drywall will be installed a 1/4" to 1/2" off the floor.

Mold Prevention:

Mold prevention starts with keeping water/moisture out of the building and keeping the construction materials dry. Additionally, the following steps will be taken to assure a mold free building:

- When/if drywall, ceiling tile, and other mold sensitive materials gets wet, they will be removed and replaced, after the source of the water is identified and contained.
- The moisture content of in-place CMU block will be measured. The waterproofing of the block will not be installed until the block is dry enough to satisfy the waterproofing manufacturer's requirements.
- The HVAC system (supply side only) will be started as soon as possible and unconditioned air will be distributed throughout the building. This will keep the building under a positive pressure and help dry out the concrete floors, drywall taping/coating and other construction materials.
- The coils and filters at the main air handling units will be protected and filtered during construction. The coils and final filters will be certified clean before turnover to the Owner.

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Policy Statement

Turner is not in the business of performing mold abatement or remediation work.

Turner Construction Company's Mold Taskforce was established to develop suggested practices to assist and provide guidance to the Business Units in connection with possible mold contamination. The taskforce has developed specific protocols to guide Turner Project Staff regarding mold, including the remediation process. All documents and forms are located in the Claims & Legal folder on the TKN Document Management System (TKN/Claims & Legal/Site Documents/Policy & Guideline /Business Unit Mold Suggested Practices).

The suggested practices begin once mold has been detected in the building and continue through complete remediation. The key to these practices is rapid response with prudent and reasonable judgment made depending on each situation.

Procedures

1. Initial Identification and Assessment – Once mold has been discovered, the business unit is to investigate, document and identify the problem and assess the magnitude of the situation. **An initial call must be made to The Business Unit Safety Director and Claims Manager.**
2. Notification – All communications shall be legally protected by addressing the correspondence to Peckar & Abramson and copying only those with a need to know.
3. Remediation Evaluation – Working in conjunction with Turner Risk Management the project team and Operations Manager should determine the level of remediation needed and the need for external expertise.
4. Evaluate Responsibility – It is critical that the source of the mold is determined and a root cause is identified. The Project Team, Operations Manager, and Turner Risk Management will determine what caused the mold contamination and what parties are responsible for the remediation.
5. Parties on Notice – As soon as reasonably possible, the BU Claims Manager shall place the culpable parties on notice. Refer to Turner's Purchasing Manual for guidance in 24 hour and 3-day notice letters per Subcontract Form 36. The Project Manager must notify the subcontractor that Turner is proceeding to have the mold problem corrected and that the subcontractor will be held accountable for the cost. Specific details can be found in the Claims and Legal folder on TKN titled "Tender Letter Protocol for Mold" (TKN/Claims & Legal / Site Documents / Correspondence / Mold

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Tender Letter). This document provides guidance on how to protect our interest relative to contractual indemnification and additional insured status.

6. Crisis Management – Depending on the extent of contamination, there may be a need for public relations involvement to minimize exposure.

7. Remediation Protocol – The Project Team manages the remediation of the mold with either a consultant and / or remediation contractor. **Specific details can be found at the Claims and Administration & Programs Mold and Moisture Remediation Policy**