



**APPENDIX A**

# Occupational Health & Safety Manual

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# Policy

- The South Mountain Company (SMCo) Occupational Health & Safety Policy, as summarized in our Operating Policies, states:

“Our Mission and Guiding Principles speak of a workplace which supports health and personal fulfillment. With that in mind, SMCo’s goal is to provide a safe working environment that is respectful of each employee’s need to perform their job efficiently, successfully, and safely. We make every effort to use materials that are environmentally benign and minimally toxic whenever possible and appropriate. We expect our employees and trade partners to use common sense on the job and to responsibly maintain their work areas. We expect vigilance with regard to safety of self and others on project sites. We encourage all to speak up about safety issues we need to be aware of and/or attend to.”

- This *Occupational Health & Safety Manual* is an important part of the SMCo safety policy. In particular, the section entitled “Health & Safety Rules” outlines the steps we take to prevent injuries, disabilities, fatalities, and property damage. SMCo employees are required to be fully familiar with these rules and to observe them at all times.
- Please see the Operating Policies for related policies regarding: Harassment, Violence, Motor Vehicle Safety, and Alcohol & Drug Use.
- This manual applies to all SMCo employees. Although it is oriented toward our Field employees in Production and Energy Technology, many sections are relevant to employees in the shop and office as well. Wherever the term “Project Lead” appears in this manual, office employees shall understand that this term means their immediate supervisor.

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# Health & Safety Rules

## (A) INTRODUCTION

- At SMCo, we use the following occupational health and safety rules in order to work towards eliminating all dangerous job-related behavior and situations.
- Additional rules are provided during periodic occupational health and safety training sessions and are found on equipment and materials labeling.
- To ensure that a safe workplace is maintained, SMCo employees must develop safe work habits and must observe all occupational health and safety rules throughout their workday.

## (B) GENERAL PROJECT SITE SAFETY

- Do not bypass any safety rules in order to meet production demands.
- Work in such a manner as to ensure your own safety, as well as that of coworkers and others. Be on the lookout for potential hazards. The leading causes of worker deaths on construction sites are:
  - Falling (this accounts for over 1/3 of all deaths in construction)
  - Being struck by an object
  - Electrocutation
  - Being caught in or between

Other common hazards include:

- Heat
- Dust
- Fire
- Puncture
- Compression/Rollover
- Chemical Exposure
- Explosion
- Light/Optical Radiation

- Do not do a job unless you know how to do it safely and understand the hazards involved. Request assistance when unsure about how to perform any task safely.
- Keep work areas clean and orderly at all times. Keep project site debris, including lumber with protruding nails, clear from all work areas.
- Store and move all materials in such a way as to prevent tipping, sliding, falling, or collapsing.
- Place materials, trucks, skids, racks, boxes, ladders, and other equipment so that they do not block exits, fire fighting equipment, lighting, or power panels. Building exits must be free of all obstructions so they can be used immediately in case of fire or emergency.
- Do not wear loose clothing, dangling jewelry, loose-fitting gloves, or wrist-cinching gloves. Do not wear headphone cords or hoodie strings outside of shirt. Long shirt tails should be tucked in front, and shirt cuffs should be buttoned or rolled up. Confine long hair in a cap or fasten securely to the back of the head.
- Wear personal protective equipment appropriate to whatever task you are doing.
- Avoid engaging in horseplay, practical jokes, or distracting activity which could lead to injury of self or others.
- Immediately report to your Project Lead all unsafe actions, practices, equipment, or conditions you observe. If you believe that a reported concern is not satisfactorily addressed, then speak with the Director of Production (Newell).
- In the event of *any work-related* accident, injury, near miss of an injury, or illness, immediately notify your supervisor, the Director of Production (Newell), and the Director of Finance and Administration (Siobhán). Additionally, as soon as possible, coordinate with the Production Administrator (Rachel) to complete the appropriate SMCo report.
- Suggest ideas for accident prevention to your Project Lead or to the Director of Production.

## (C) PERSONAL PROTECTIVE EQUIPMENT

### Generally

- Use appropriate personal protective equipment (PPE) in all operations where you are exposed to hazardous conditions.
- Whenever possible, control hazards using methods other than PPE. For example, incorporate engineering controls, use a less toxic material, or use a different method.
- SMCo will train you in proper use of PPE. All PPE that is required will be provided, maintained, and paid for by the company. If you want to provide your own PPE, have your Project Lead inspect the equipment prior to use in order to ensure its adequacy.

### Head Protection

- A hard hat is provided and should be worn at appropriate times. Such times include when overhead, falling, or flying hazards exist. Be especially alert to hazards posed by telehandler and crane work, roofing, framing, and trade partner activity.
- Inspect your hard hat at the start of each shift for dents, cracks, and deterioration. Maintain your hard hat in good condition. Do not drill, clean with strong detergents or solvents, paint, or store in extreme temperatures.
- If your hard hat takes a heavy blow or electrical shock, replace it even when you detect no visible damage.

### Foot Protection

- Do not wear open-toed shoes on the project site. Composite high-profile toe safety shoes are recommended in areas where hazards exist. Such areas may include construction sites, the shop, the yard, and all material storage areas. When in the field or the shop, wear shoes with slip-resistant and puncture-resistant soles.

### Eye and Face Protection

- Wear appropriate eye and face protection (such as safety glasses or face shields) when exposed to eye or face hazards. Be especially alert to hazards posed by cutting, nailing, welding, using power or impact tools, working on

tasks that produce dust or flying chips, working with concrete, and working with harmful chemicals.

- Use the equipment that correctly suits the hazard. Eye and face protectors are designed for particular hazards.
- If your vision requires the use of prescription lenses, wear either protective devices fitted with prescription lenses or protective devices designed to be worn over regular prescription eyewear. SMCo will reimburse this expense. Submit your receipt to the Director of Finance & Administration (Siobhán).
- Replace poorly fitting or damaged face shields and safety glasses.

### **Hand Protection**

- Wear appropriate protective gloves when your hands are exposed to cuts, abrasions, punctures, burns, chemicals, and similar hazards.
- Wear the right gloves for the job. No gloves provide protection against all potential hand hazards.
- If wearing gloves in a potentially hazardous situation, do not wear loose-fitting or wrist-cinching type gloves.
- Replace gloves that fit poorly, are damaged, or have an abraded grip surface.
- Button shirt cuffs.

### **Hearing Protection**

- Wear appropriate hearing protection in high noise areas, including:
  - When using or working near equipment that produces sustained noise, such as power tools, power saws, pneumatic tools, floor sanders, and chippers.
  - When metalworking or working near metal hammering, cutting, drilling, or forming.
  - When working near operating compressors or other noisy machinery.
- When in doubt, if sustained noise requires you to raise your voice to be heard at a distance of 4', wear appropriate hearing protection.

- Project site music and hearing protection should be such that you can easily hear someone yelling at 15'.
- Project site music should be no louder than the loudest tool on the job.

### **Respiratory Protection**

- Wear appropriate respiratory protection equipment (such as a dust mask or a NIOSH-certified respirator) when there is a risk of exposure to materials, dust, or vapors that could cause respiratory injury. Take particular care when exposed to dust resulting from cutting of concrete, stone, or masonry.
- Wear the correct respiratory equipment for the job, and ensure that it fits properly.
- Replace respiratory equipment when poorly fitting or damaged.

### **Fall Protection**

- See all information below in section (G) *Fall Protection*.
- Wear appropriate fall protection equipment (such as a safety belt, lifeline, lanyard, personal fall arrest system) as appropriate when working at heights.
- Do not use fall protection equipment unless you have been properly trained.
- Carefully inspect all of your fall protection equipment, including the anchor point, before using the equipment.

### **Exposure Protection**

- Take care to protect yourself from extremes of temperature. Wear appropriate clothing to protect against wet conditions, and apply sunscreen and skin protection to guard against solar exposure.



## (D) TOOLS & EQUIPMENT

### All Tools & Equipment

- Do not use unsafe tools or equipment.
- Regularly inspect all tools and equipment that you use (whether they belong to you or the company), and maintain them in a safe condition.
- If a tool or piece of equipment is broken or damaged, clearly tag it “Do Not Use” and remove it from the project site.
- Any tool or equipment repair must be approved by an authorized person.
- Report any unsafe equipment to your Project Lead immediately.
- Operate tools and equipment only in well-lighted and safe work areas.
- Operate tools and equipment only when you can maintain good footing and balance.

### Hand Tools

- Keep wooden handles free of splinters and cracks, and be sure the handles stay tight in the tool.
- Do not use wrenches when the jaws are sprung to the point of slippage. Replace them.
- Do not use impact tools with mushroomed heads. Grind off mushroomed heads or replace the tools.

### Power Tools & Equipment

- Use power tools only when they are properly grounded or are marked as double-insulated.
- Use power tools only with GFCI protection. Run tools through a GFCI protected spider box when in doubt.
- Turn off or disconnect tools when not in use, before servicing or adjusting, and when changing accessories such as blades and bits.
- Do not adjust a machine setup while the machine is operating.
- Ensure that a tool’s power cord is protected from damage in the course of work: do not raise or lower tool by its cord; do not pull cord to disconnect it

from the receptacle; keep cord away from heat, oil, and sharp edges; do not remove ground prong from cord; and ensure that cord does not present a tripping hazard.

- Do not use electric tools in damp or wet locations unless they are approved for that purpose.
- Do not hold fingers on the switch button while carrying an energized tool.
- For air tools, see *(M) Gas Cylinders & Compressed Gases*.

### Powder-Actuated Tools

- Do not use powder-actuated tools unless you have been properly trained.
- Do not load a powder actuated tool until immediately before use.
- Do not leave cartridges and loaded tools unattended.
- Store cartridges in a safe place.

## (E) POWER SAWS

### Generally

- Inspect power saws prior to use. Confirm that blades, guards, belts, etc. are all in good condition and adjusted properly.
- Guards are standard equipment on most power saws. Do not remove or disable a saw guard for operating convenience. Inform the Safety Committee of tasks that are not possible to complete with a saw guard in place.
- Use the appropriate blade for the task.
- Blade depth should not be set to greater than the minimum required depth.
- Properly support all pieces of stock, including the cut and uncut ends.
- Never leave a machine unattended in the “on” position.
- Do not clean sawdust or scrap from a saw while it is running.

### **Handheld Circular Saws**

- All handheld circular saws must have intact and functional saw guards 100% of the time.
- Use cordless saws when possible, since they have a quicker inherent braking and are generally safer than corded saws.

### **Table Saws**

- Riving knives, feather boards, and push sticks are important safety tools for table saws. Ensure that they are present and use them as appropriate.
- Exercise care when presenting material to the blade.
- Do not saw freehand. Always hold the stock against a gauge or fence, or use a skill saw with bed supported and material clamped.
- Drop cuts should not be performed on the table saw. Use a plunge or track saw instead.

### **Chainsaws**

- Chainsaws are extremely dangerous, should be used with caution, and only when no other tool can be practically substituted. Chainsaws require special training and use of full protective gear, including kevlar chaps and steel-toed boots.
- A functional kickback guard cutoff switch must be in place and tested regularly.
- Battery-operated chainsaws are safer and should be used where possible.
- Ensure the chainsaw engine is the appropriate size for the project.
- Identify and clear any obstacles that may interfere with stable footing, cutting, or impede retreat paths.
- Clear away dirt, debris, small tree limbs, and rocks from the chainsaw's path.
- Look for nails, spikes, or other metal objects prior to cutting.
- Plan the cut, and watch for objects under tension.

- Plan where the object will fall, and avoid felling an object into other objects.
- Do not cut directly overhead.
- Take breaks as needed as fatigue increases the risk for accident and injury.

### **(F) ELECTRICITY**

- Inspect existing conditions before starting work on or near electrical circuits. Determine operating voltage of equipment and lines before working on or near energized parts. For buried power line locations, contact Dig Safe (see *Emergency Contacts*).
- Assume that all electric equipment and lines are energized until determined otherwise.
- Do not work near live parts of electrical circuits, unless you deenergize and ground the parts, or you guard the parts using approved insulation. Cover-up material, consisting of line hoses or blankets installed by the electric utility company, is for visual identification only and must not be regarded as protective equipment.
- If a piece of equipment or circuit needs to be deenergized, do not proceed until an authorized person conducts the approved Lockout-Tagout procedures.
- Do not operate any machine or equipment which has been deactivated according to Lockout-Tagout procedures. (Machines or equipment which may cause injury due to unexpected energization or start up, or from the release of stored energy, will be subject to Lockout-Tagout procedures. These procedures will be performed only by authorized and trained employees.)
- Use caution if using a jack hammer, bar, shovel, or other hand tool that may contact an underground electrical line.
- Maintain at least a 10' clearance from overhead power lines.

- Be alert to metal equipment that can contact power lines, such as backhoes, forklifts, concrete pumpers, cranes, raised dump truck beds, long-handled tools, metal building materials, antennae, metal ladders, and scaffolds.
- When working near power lines, use nonconductive wood or fiberglass ladders.
- Install and use listed, labeled, or certified electrical equipment only in accordance with the instructions included in the listing, labeling, or certification.
- If you install temporary light bulbs for general illumination, ensure that: bulbs are protected from breakage, metal shell sockets are grounded, and lights are not suspended by their cords unless they are so designed.

### **Extension Cords**

- Use extension cords only as a means of temporary wiring.
- Ensure that all receptacles that are not part of the permanent wiring are protected by GFCI's.
- Use only extension cords of the three-wire type, marked for hard or extra hard use, 12 gauge or better.
- Inspect all extension cords before use. If you see an extension cord that has one or more of the following characteristics, take it out of service immediately, tag it "Do Not Use", and remove it from the project site (SMCo will pay for cord replacement):
  - Cord has only two wires
  - Cord is damaged, worn, or frayed
  - Cord has been modified
  - Cord is missing ground prong
- Do not modify an extension cord. SMCo will pay for cord replacement.
- Keep work spaces, walkways, and similar locations clear of extension cords.
- To reduce the likelihood of extension cord damage:
  - Remove cords from receptacles by pulling on the plugs, not the cords.

- Keep cords away from heat, oil, and sharp edges.
- Do not run cords through holes in walls, through doorways, in paths of traffic, across pinchpoints, or near moving parts of machinery.
- Do not fasten extension cords with staples or hang them from nails.
- When a generator is set up on project site for ongoing use, ensure that the generator is grounded.

## **(G) FALL PROTECTION**

### **Generally**

- If you or others are exposed to falling 6' or more, do not continue working until you consult with your Project Lead and implement an appropriate fall protection system (such as a fence, barricade, cover, catch platform, guardrail system, or personal fall arrest system).
- Before each shift, carefully inspect all fall protection equipment.
- Install warning lines, using caution tape or paint, 6' back from all open sides and edges.
- If you or others are exposed to falling through a surface due to lack of structural strength or integrity, do not work or travel over that surface until the problem is corrected.

### **Personal Fall Arrest Systems**

- A personal fall arrest system is a system used to safely stop (arrest) a worker who is falling from a working level. It consists of an anchorage, connectors, and a body harness. It also may include a lanyard, deceleration device, and a lifeline.
- Before each shift, carefully inspect all components of your personal fall arrest system.
- Do not use a personal fall arrest system unless you have been properly trained.



## **Guardrail Systems**

- Top edge height of top rails must be 39-45” above the walking/working level. Guardrail system must be capable of withstanding at least 200 pounds of force applied within 2” of the top edge, in any direction and at any point along the edge.
- Midrails must be midway between the top edge of the guardrail system and the walking/working level. Midrails and other intermediate members must be installed between the top edge and the walking/working surface when there is no wall or other structure at least 21 inches high. Midrails and other intermediate members must be capable of withstanding at least 150 pounds of force applied in any direction at any point.
- Other structural members (such as additional midrails or architectural panels) must be installed so as to leave no openings wider than 19 inches.
- Guardrail systems must not have rough or jagged surfaces that would cause punctures, lacerations, or snagged clothing.

## **Working at Heights**

- Do not work on a roof unless you are protected from falling by a personal fall arrest system or by a catch platform (consisting of supported scaffolds with standard guardrails, no more than 4’ below the entire edge of the roof).
- During installation of rafters and trusses, do not work from the top plate unless you are protected from falling by a personal fall arrest system or by a catch platform.
- During installation of floor joists or end plates, do not work from the top of the foundation wall. Use a ladder or scaffolds from the inside of the foundation.

## **Floor Openings**

- Guard floor openings of 12” or more with a secured and appropriate cover, a standard guardrail, or equivalent on all sides (except at entrances to stairways).
- Hole covers must be able to withstand at least twice the weight that may be imposed on them. Generally, a minimum of 3/4” plywood must be used for covers, but in situations where the span exceeds 2’ in any direction, 2”x4”

lumber must be used for additional support. Materials such as poly, sheetrock, tar paper, Tyvek, cardboard, or foam must not be used as hole covers.

- Standard guardrails must be 42” high, with 21” midrails, and capable of supporting 200 lbs. of pressure in any direction.
- When creating a stairwell:
  - Prior to cutting floor sheathing to the size of the rough opening, install warning lines, using caution tape or paint, 6’ back from all sides of the opening.
  - Install standard guardrails around the opening.

## **Wall Openings**

- If a rough door opening creates a fall hazard, install a top guardrail at 42” and a midrail at 21”, fastening both rails to the interior of the wall studs.
- If a large rough window opening, or similar wall opening, has a bottom lower than 42”, install a guardrail at 42”. If the bottom is lower than 21”, also install a midrail at 21”. Fasten rails to the interior of the wall studs.

## **Roof Openings**

- When feasible, do not remove sheathing for roof openings and skylights until immediately prior to placing the skylight or object that must project through the roof opening.
- Guard roof openings with a secured and appropriate cover. Hole covers must be able to withstand at least twice the weight that may be imposed on them. Generally, a minimum of 1/2” plywood must be used for covers, but in situations where the span exceeds 2’ in any direction, 2”x4” lumber must be used for additional support. Materials such as poly, sheetrock, tar paper, Tyvek, cardboard, or foam must not be used as hole covers.

## (H) STAIRS & RAMPS

- Keep all stairways, ramps, and their approaches, clear for safe passage.
- Do not place materials or debris on stairways or ramps.
- Correct slippery conditions on stairways and ramps immediately.
- Each project site will have a designated primary stairway. When building a temporary stairway, ensure that the following standards are met:
  - Stairways must be installed at least 30 degrees, and no more than 50 degrees, from the horizontal.
  - Landings must be at least 30” deep and 22” wide at every 12’ or less of vertical rise.
  - Treads must cover the entire step and landing.
  - Handrail height must be between 30” and 37” from the upper surface of the handrail to the surface of the tread, in line with face of riser at forward edge of the tread.
  - Unprotected sides and edges of stairway landings must be provided with a guardrail system.
- Each project site will have a designated primary utility ramp. When building a temporary ramp (or walkway), ensure that the following standards are met:
  - No ramp shall be inclined more than a slope of 1’ vertical to 3’ horizontal (20° above the horizontal).
  - If the slope of a ramp is steeper than 1’ vertical to 8’ horizontal, the ramp shall have cleats not more than 14” apart which are securely fastened to the planks to provide footing.
  - Ramps 6’ or more above lower levels shall have guardrail systems.

## (I) LADDERS

- Always inspect your ladder before use. Look for defects such as structural damage, corrosion, split or bent side rails, and broken or missing rungs. Also inspect for grease, dirt or other contaminants that could cause slips or falls. All extension ladders must have hoisting ropes.
- If a ladder is not safe for use, immediately remove it from service, tag it “DO NOT USE”, and notify the Project Lead so it can be repaired or replaced. SMCco will pay for ladder replacement.
- Stud ladders must not be painted, and they must be decommissioned at the end of each project.
- Use only a ladder that is long enough to safely reach the work area. Ladders must extend 3’ above landings.
- Place your ladder at a pitch of 1:4, so the rails are at roughly shoulder height arms length when standing at the base.
- Place your ladder only on stable and level surface, unless secured to prevent accidental movement. Do not place a ladder on boxes, barrels, or other unstable bases to obtain additional height. Use extreme care when a ladder rests on a slippery building wrap such as Tyvek.
- Maintain three points of contact with the ladder at all times. (For example: both feet and one hand, or both hands and one foot.)
- Do not lean away from the ladder to carry out your task. Maintain your center of gravity between the side rails to ensure that the ladder does not tip over or kick out.
- When using a stepladder, do not use the top two steps, and ensure that both spreaders are locked.
- Never load ladders beyond the manufacturer’s rated capacity (including the weight of the user, materials, and tools).
- When working near electrical work or overhead power lines, only use ladders with nonconductive siderails.
- Do not place a ladder in front of a door that opens toward the ladder, unless the door is blocked, locked, or guarded.

## (J) SCAFFOLDS

*Scaffolds include pipe staging, pump staging, and site-built scaffolding.*

- When working on scaffolds, be alert to fall hazards, falling object hazards, electrical hazards, handling of materials, and maximum intended loads.
- Erect, move, dismantle, and alter scaffolds only under the supervision of an authorized and qualified person.
- Do not use any scaffolds unless:
  - The scaffolds have been inspected by an authorized and qualified person prior to the work shift and after any occurrence which could affect their structural integrity.
  - The scaffolds are erected on solid footing. (Unstable objects, such as barrels, boxes, loose bricks or concrete blocks must not be used to support scaffolds.)
  - The scaffolds are sound, rigid, and sufficient to carry their own weight plus four times the maximum intended load without settling or displacement.
  - Scaffold platforms are tightly planked with scaffold plank grade material, creating a work area at least 18” wide. A platform must not deflect more than 1/60 of the span (2” deflection per 10’ of span) when loaded.
- When scaffold platforms are more than 24” above the point of access, an appropriate stairway, ramp, or ladder must be supplied. Cross braces are prohibited as a means of access.
- When scaffold platforms are above 6’, an appropriate fall protection system must be supplied.
- When there is a danger of tools, materials, or equipment falling from a scaffold and striking workers below, the area below to which objects can fall shall be barricaded to prevent worker entry. Alternatively, install toeboards, guardrails, nets, or deflectors to provide protection from falling objects.

## (K) FIRE PROTECTION

- Be alert to fire hazards and take action to ensure that these hazards are eliminated. Fire is the primary threat to the existence of the SMCo headquarters (due to our materials storage, woodworking shop, and high traffic). Fire poses a similar threat on our project sites.
- Locate firefighting equipment so that it is conspicuous and readily accessible at all times. At least one fire extinguisher should be located on each floor of each building. Travel distance from any point of the protected area to the nearest fire extinguisher must not exceed 100’. Keep all fire extinguishers in designated and clearly marked locations when they are not being used.
- Always maintain clear access to fire extinguishers, fire alarms, circuit panels, gas shutoffs, and exits. Do not store materials or equipment in front of this equipment.
- If you see a fire extinguisher that is not fully charged, or any other firefighting equipment that is not in operable condition, notify your Project Lead immediately so the problem can be corrected.

### **Trash & Debris**

- Keep all project sites and work areas clean of trash and debris.
- Do not place combustible trash (like rags, cardboard, and small pieces of wood) in cardboard cartons, wooden crates, or other flammable containers.
- Place combustible trash only in containers constructed of metal. Dispose of cigarettes, matches, and similar sources of ignition in separate containers constructed of metal.
- Place outdoor receptacles for combustible trash at least 15’ from the building and other combustible materials, and keep water in the bottom.

### **Flammable & Combustible Liquids**

- Store flammable and combustible liquids:
  - Only in areas free from weeds, debris, and other combustible materials.
  - Only in containers approved for such purpose.

- Only in clearly labeled containers.
- Do not store more than 25 gallons of flammable or combustible liquids indoors.
- Close all containers when not in use.
- Do not smoke or use open flames in areas where flammable and combustible liquids are used or stored.
- Use flammable and combustible liquids only in small quantities.
- Do not use gasoline as a cleaner or solvent.
- Use only proper transfer equipment when transferring a flammable liquid such as gasoline for refueling.
- Do not refuel a hot or running engine. Clean up spills before restarting.

### **Welding, Cutting & Burning**

- When welding or doing other “hot work”, take proper precautions for fire prevention, including: isolate the work area, remove fire hazards from the vicinity, and provide a fire watch.
- Do not weld, cut, or heat where the application of flammable paints or the presence of other flammable compounds or heavy dust concentrations create a fire hazard.

### **(L) HAZARDOUS MATERIALS**

- Material Safety Data Sheets (MSDS) for hazardous materials used by the company are available on the SMC Co Smartsheet SAFETY page.
- Be familiar with characteristics of the hazardous materials in use on your project site. Refer to the MSDS as necessary.
- Ensure that all hazardous materials on the project site (thinners, fuel, powder cartridges, poisons, acids, adhesives, solvents, flammable liquids, etc.) are stored and labeled properly to protect from accidental exposure, fire, explosion, or spillage.
- Store all hazardous materials separately from all other substances. (See above: Fire Protection / Flammable & Combustible Liquids.)

- If you find any of the following hazardous materials on a project site, notify your Project Lead immediately. Only authorized and qualified employees are permitted to handle or remove these materials:
  - Asbestos
  - Lead (including lead paint)
  - Explosives
  - Radioactive materials
- Dispose of hazardous waste properly. Do not dump hazardous waste in drains, sewers, dumpsters, or onto the ground. If you do not know the proper disposal method, consult with your Project Lead or the Director of Production.

### **(M) GAS CYLINDERS & COMPRESSED GASES**

- Ensure that all pressure regulators, gauges, valves, and connectors are of the correct type for the gas and in proper working order while in use.
- Do not exceed the manufacturer’s safe operating pressure for all fittings.
- Secure all hoses in a positive manner to prevent accidental disconnection.
- Inspect and maintain safety clips and retainers on pneumatic impact tools to prevent attachments from being accidentally expelled.
- If a hose exceeds 1/2” inside diameter, ensure that a safety device is installed at the source of supply or branch line to reduce pressure in case of hose failure.
- Always assume that a cylinder is pressurized.
- Handle cylinders carefully. Do not throw, bang, tilt, drag, roll, or drop a cylinder.
- Secure cylinders in an upright position at all times, except if necessary for short periods of time when cylinders are being hoisted or carried.
- When moving or storing cylinders, ensure that valves are closed and that valve protection caps are secured in place.
- Keep all ignition sources, (e.g., welding torches, lit cigarettes, electric arcs, electrostatic charges, and pilot lights) away from flammable gases at all times.

- Keep cylinders far enough away from welding and cutting operations so that sparks, hot slag, or flame will not reach them.
- Do not use a flame to detect flammable gas leaks. Use soapy water or other approved methods.
- Do not transfer compressed gases between cylinders.
- Do not use cylinders for any purpose other than as a source of gas.
- Always close cylinder valves when work is finished.
- When shutting down a system, close the cylinder valves and then vent the pressure from the entire system. Do not leave pressure in a system that is not being used.
- When using compressed air for dusting or cleaning clothing, wear appropriate eye protection to prevent particles from blowing into your eye.

## (N) EXCAVATING & TRENCHING

- All excavations must be inspected for cave-in potential by a competent and authorized employee (a) on a daily basis prior to any entry, and (b) after any hazard-increasing event such as a rainstorm, vibrations, or excessive spoil loads.
- Do not enter an excavation until a competent and authorized employee has conducted the daily inspection and approved entry.
- Do not enter an excavation greater than 5' in depth unless it is protected from cave-in by an approved method of sloping walls, shoring walls, and/or shielding workers. For excavations greater than 20' in depth, the cave-in protection system must be designed by a registered engineer.
- Do not enter an excavation when digging equipment is in use.
- If any potential for cave-in develops, stop work immediately and exit the excavation. Fix the problem before work starts again.
- Before excavating, call Dig Safe and determine the location of underground utilities such as sewer, telephone, fuel, electric, and water lines.

- Install a stairway, ladder, ramp, or other safe means of egress in excavations that are 4' or more in depth so as to require no more than 25' of lateral travel for workers.
- Keep all materials, equipment, and excavated spoils at least 2' from the edge of excavations.
- After foundation walls are constructed, be alert to the potential for cave-ins in the area between the excavation wall and the foundation wall.

## (O) CONFINED SPACES

- Be alert to any potential need to work in a confined space. Confined spaces are work areas that have limited means for entry or exit, such as: crawlspaces, storage tanks, bins, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4' deep such as pits, tubs, vaults, and vessels. Confined spaces present risks of insufficient oxygen, contaminated air, difficult exit in the event of an emergency, and difficult access to a disabled employee.
- Do not work in a confined space until you have been instructed about:
  - The hazards involved
  - The precautions to be taken
  - The use of required protective and emergency equipment

## (P) DEMOLITION

- Do not proceed with the demolition of any structure until a competent and authorized person has made a survey of the structure to determine the condition of the framing, floors, walls, electrical system, and the possibility of unplanned collapse of any portion of the structure.
- During balling or claiming operations, do not work in the demolition area unless your work is necessary for the performance of these operations.

## (Q) FALLING OBJECT PROTECTION

- Always wear a hardhat when you are exposed to falling objects. If exposure is significant, consult with your Project Lead to determine the need for a screen, canopy, barricade, or other protective system.
- Always wear a hardhat when overhead work (such as framing, roofing, sheathing, stonework, masonry, and siding) is ongoing.
- Do not work directly below other workers. Coordinate work to prevent any worker working directly below another worker.
- Secure all tools and parts to prevent them from falling on workers below.
- Install toeboards to prevent objects falling from elevated surfaces, or through floor holes, onto workers below.
- Stack and secure all materials to prevent sliding, falling, or collapse onto lower levels.
- When working with cranes and other hoisting devices, inspect all components (such as wire ropes, lifting hooks, and chains) to ensure that they are in good condition.
- Do not work underneath loads being moved by cranes, telehandlers, boom forklifts, or delivery trucks.

## (R) CONCRETE & MASONRY CONSTRUCTION

- Prior to the construction of a masonry wall, construct a limited access zone that:
  - Is established on the side of the wall that will be unscaffolded
  - Is equal to the height of the wall to be constructed plus 4'
  - Runs the entire length of the wall
  - Is restricted to entry by workers actively engaged in constructing the wall
  - Remains in place until the wall is adequately supported to prevent collapse

- Do not work under concrete buckets while buckets are being elevated or lowered into position.
- Wear appropriate respiratory protection equipment (such as a dust mask or a NIOSH-certified respirator) when there is a risk of exposure to materials, dust, or vapors that could cause respiratory injury. Take particular care when exposed to dust resulting from cutting of concrete, stone, or masonry.

## (S) TELEHANDLERS, CRANES & HEAVY EQUIPMENT

- Do not operate any telehandler, crane, aerial lift, or similar hoisting, lifting, or heavy equipment unless you have received formal training (and, for certain equipment, certification) and are approved by SMC to operate the particular equipment.
- Do not operate such equipment until a competent person has conducted a safety inspection of the equipment during the current work shift. If the equipment is in need of repair, do not operate it until repairs have been made.
- Secure all vehicle loads properly.
- Do not disconnect back-up alarms on vehicles that have them installed.
- Use spotters when heavy equipment must be moved.
- When loading, unloading, or otherwise working in conjunction with operators of such equipment:
  - Do not ride on the equipment in any way not designated by the manufacturer.
  - Do not stand or work in any location where the equipment poses a crushing hazard.
  - Do not stand, pass, or work under the empty or loaded elevated portion of any equipment, unless it has been blocked effectively to prevent it from falling.
  - Do not load equipment in excess of its rated capacity.
  - Be prepared to alert the operator of any unexpected hazards, overhead power lines, and potential obstructions.



## (T) MOVING & LIFTING

- When moving:
  - Configure machines, work stations, and tasks to avoid sustained activity in awkward positions (such as bending, crouching, leaning, twisting, and reaching overhead).
  - Take breaks to avoid repetitive physical motion.
  - If you work at a desk, avoid sustained sitting with poor posture.
- When lifting:
  - Do not attempt to lift or push objects that may be too heavy for you. Use a material-handling device when possible. Get help from a coworker when you need it.
  - Before lifting, always test the load for stability and weight.
  - When working at heights or on uneven surfaces, exercise extreme caution and assess the safest option before moving a heavy object.
  - Lift properly to avoid strains: bend your knees, keep your body erect, then push up with your legs. Keep the load as close to your body as possible. Do not twist your torso while lifting.
  - Pace yourself to avoid fatigue.

## (U) EXTREME TEMPERATURES

- Monitor your exposure to extreme temperatures. Thresholds vary from person to person regarding tolerance of heat and cold. Consequently, the risk of illness and injury also varies from person to person. Although Project Leads are instructed to monitor workplace temperatures for safety, you must remain alert to your particular needs.
- Be alert for the symptoms of cold-related and heat-related stress (frostbite, heat stroke, etc.). Watch for these symptoms in yourself and co-workers. Report such symptoms to your supervisor immediately.

- When temperature extremes exist, give greater allowances to yourself and others. For example, increase rest times and postpone tasks which are not urgent.
- Make use of provided shading and heaters to take breaks in extreme conditions.
- Monitor your hydration and drink water before you are thirsty. All project sites are provided with drinking water,

## (V) STORMS

- When a major storm is expected, conduct the tasks specified on the relevant checklists located on the SMC Co Smartsheet SAFETY page.

## (W) EMERGENCY PROCEDURES

### **Injury**

- Call 911, go to the emergency room, or provide first aid.

### **Fire**

- Call 911 (unless the fire can safely and immediately be extinguished with a fire extinguisher).
- Evacuate the work area. Do not re-enter until notified by the fire department.
- Conduct a head count to confirm that all workers are accounted for.

### **Hazardous Materials Event**

- If a hazardous material is accidentally released and can potentially cause harm, evacuate the area immediately.
- Call 911 from a safe location.
- Do not attempt to clean up or control the release of a hazardous material. SMC Co retains the services of Clean Harbors to handle hazardous materials events. See Emergency Contacts on the SMC Co Smartsheet SAFETY page.

### **Motor Vehicle Accident**

- In the event of injury or hazard, call 911.
- Call and wait for the police.
- If possible, take pictures of damage and the accident scene.
- If another vehicle is involved, get the driver's license number, contact info, plate number, vehicle description, VIN, and insurance company info.

### **Reporting**

- In the event of *any work-related* accident, injury, near miss of an injury, or illness, immediately notify your supervisor and the Director of Finance and Administration (Siobhán).

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# Administration

## (A) ASSIGNMENT OF RESPONSIBILITIES

### **Safety Committee**

The Safety Committee shall be responsible to oversee administration and enforcement of SMCo's occupational health and safety program.

### **Leadership Team (LT)**

LT shall be responsible to share in the enforcement of all occupational health and safety policies, rules, and procedures, as specified in the "Failure to Observe Policies" section of this manual.

### **Director of Production**

The Director of Production shall be SMCo's occupational health and safety officer and shall be responsible to perform, or delegate the performance of, the following:

- Develop and administer the company's occupational health and occupational health and safety program.
- Annually review the *SMCo Occupational Health & Safety Manual*, and revise as necessary.
- Develop and administer an ongoing occupational health and safety training program for all employees.
- Conduct monthly safety meetings. The purpose of these meetings is to review injury and near-miss reports and statistics, review safety inspection reports, review safety procedures, and provide guidance on how best to provide a safe work environment.
- Conduct frequent and regular safety inspections of all project sites (including work procedures, ergonomic hazards, work areas, storage areas, and the storage, labeling and disposal of hazardous materials).

- Conduct frequent and regular safety inspections of all equipment, including: power tools, power equipment, company-owned vehicles, and office electrical equipment. Maintain a log of all equipment, including inspection schedules, and service dates.
- Conduct periodic inspections when new substances, processes, procedures or equipment are introduced that present new potential hazards.
- Assess each work area or operation and determine the need for personal protective equipment.
- Select, purchase, issue, monitor, and maintain all personal protective equipment.
- Maintain a current inventory of hazardous chemicals used by the company and a file of all corresponding Material Safety Data Sheets (MSDS). Maintain a system to make all this information readily available to employees.
- Ensure that all trade partners working on SMCo project sites receive a safety orientation. The purpose of this orientation is to ensure that all workers on each project site are following the same safety procedures.
- Monitor employee compliance with the "Health and Safety Rules" described in this manual.
- Conduct a prompt investigation of every accident. Determine the cause of the accident and take measures necessary to prevent any recurrence.
- Maintain a recordkeeping and reporting system that meets all OSHA requirements. At minimum, this system must include: safety inspection reports, injury and near-miss reports (including related medical records), training records, and safety meeting minutes.
- Monitor company compliance with all applicable federal, state, and local safety regulations. Keep abreast of changes to regulations.
- Periodically report to LT on performance of the above responsibilities.

## Project Leads

Project Leads shall be responsible to:

- Ensure the occupational health and safety of all employees under their management.
- Plan for occupational health and safety in every aspect of an operation. Anticipate, mitigate, or eliminate all accident-producing situations.
- Provide employees with necessary personal protective equipment (PPE) and instructions for its proper use and care.
- Conduct a daily occupational health and safety inspection of their project site, including, but not limited to:
  - Potential hazards (materials, equipment, procedures, falling, weather, etc.)
  - Warning signs, barriers, and other hazard indicators
  - Site organization, cleanliness, and tidiness
  - Hazardous materials storage and labeling
  - First aid kit
  - Fire extinguishers
  - Scaffolding, guardrails, temporary stairs, ladders
  - Trenches or holes
  - Personal protective equipment
  - Guards on machines and equipment
  - Telehandlers, hoisting, and lifting equipment
- Correct all unsafe work conditions and work habits immediately upon discovery.
- Conduct weekly safety meetings with their crew. The purpose of these meetings shall be to encourage safety awareness, motivate observance of proper practices, encourage reporting and discussion of job hazards, and introduce new safety procedures.
- Ensure that all trade partners on the project site are advised of hazardous materials present, and ensure that all trade partners report hazardous materials that they are bringing onto the project site.
- Investigate all accidents and near-misses immediately. In the event of *any work-related* accident, injury, near miss of an injury, or illness, immediately notify your supervisor and the Director of Finance and Administration (Siobhán).
- Monitor employee compliance with the “Health and Safety Rules” described in this manual.
- Ensure that the project site is properly protected against fire:
  - Assess the need for firefighting equipment, and ensure that sufficient equipment is available to effectively meet all fire hazards as they occur.
  - Locate firefighting equipment so that it is conspicuous and readily accessible at all times. At least one fire extinguisher should be located on each floor of each building. Travel distance from any point of the protected area to the nearest fire extinguisher must not exceed 100’.
  - Periodically inspect firefighting equipment and maintain it in good operating condition.
  - If you must remove a fire extinguisher from its location for service, replace it with a spare extinguisher during the period of service.
- Ensure that the project site is provided with required sanitation facilities:
  - An adequate supply of drinking water. Drinking water containers must be capable of being tightly closed and equipped with a tap. Use of a common drinking cup is prohibited.
  - One toilet per 20 persons, unless employees have transportation readily available to nearby toilet facilities.
  - Adequate washing facilities for employees engaged in operations involving harmful substances.

## Employees

Employees shall be responsible to:

- Be fully familiar with the “Health and Safety Rules” described in this manual and observe them at all times.
- Speak up about safety issues we need to be aware of and/or attend to. “If you see something, say something.”
- In the event of *any work-related* accident, injury, near miss of an injury, or illness, immediately notify your supervisor and the Director of Finance and Administration (Siobhán).
- Participate in all required safety meetings and training programs.
- Ask questions whenever a safety rule or training instruction is not fully understood.

## (B) LEGAL OBLIGATIONS

### Generally

The *South Mountain Company Occupational Health & Safety Manual* is designed primarily to support the SMCo occupational health and safety policy. It is also designed to help SMCo meet its legal obligations under the Federal Occupational Safety and Health Act and related safety regulations. Since this manual cannot address all the laws and regulations which might apply, our goal is to balance legal requirements with recognized occupational health and safety procedures and common sense. Many provisions in this manual are required by law. This section includes additional obligations that deserve special attention.

### OSHA Site Inspections

The US Occupational Safety & Health Administration (OSHA) is legally permitted to conduct onsite inspections of worksites to enforce OSHA laws. According to OSHA, inspections are initiated without advance notice and are conducted using onsite or telephone and fax investigations. In the event of an OSHA site inspection, SMCo policy is as follows:

- The Project Lead must:
  - Instruct all employees to cease work and leave the working area, but remain on the project site.
  - Confirm the inspector’s credentials.
  - Notify the Director of Production or CEO immediately.
  - Record as much information as possible relevant to the inspector’s visit (photographs, videos, notes, etc.)
  - If a violation can easily be fixed while the inspector is present, do so.
- The Director of Production or CEO must:
  - Notify all SMCo Project Leads immediately.
  - Proceed to the project site to serve as the formal representative of the company.
  - Bring a camera, notepad, and pen to the project site.
  - Record as much information as possible relevant to the inspector’s visit.
- Employees at the project site must:
  - Cease work and leave the working area, but remain on the project site.
  - Be prepared for the OSHA inspector to ask questions. (You are free to speak with the OSHA inspector during an inspection. You also have the right to decline to be interviewed.)

### Project Site Requirements

The following facilities are required at all work sites:

- An adequate supply of drinking water.
- One toilet per 20 persons.
- Adequate washing facilities for employees engaged in operations involving harmful substances.
- Readily available first aid supplies.
- Fire extinguishers.

## **Hazardous Materials Requirements**

- Employer is required to provide employees with:
  - Information and training on hazardous chemicals in their work area.
  - Proper notice whenever a new hazard is introduced into their work area.
  - The location and availability of the required list of hazardous chemicals, and Material Safety Data Sheets (MSDS).
- Employer is required to communicate hazard information to trade partners and other non-employees working on the project site.
- Employer is required to ensure that each container of hazardous chemicals in the workplace is marked with the identity of the hazardous chemical(s) contained therein and with general information regarding the hazards of the chemical.

## **Personal Protective Equipment Requirements**

- Employer is required to provide employees with appropriate personal protective equipment for tasks that require it.
- Employer is responsible for requiring employees to wear appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions.

## **OSHA Poster Requirement**

- The law requires that employees be informed of the protections provided under the Occupational Safety and Health Act. All employers must post and maintain in a conspicuous place of major travel copies at each establishment of the OSHA Notice “Job Safety and Health”.

## **Recordkeeping Requirements**

- See current OSHA requirements at <[www.osha.gov/recordkeeping](http://www.osha.gov/recordkeeping)>.
- The following basic OSHA records must be maintained:
  - OSHA Form 300 (Log of Work-Related Injuries and Illnesses)
  - OSHA Form 300A (Summary of Work-Related Injuries and Illnesses)

- OSHA Form 301 (Injury and Illness Incident Report)
- Form 300A must be posted in the workplace every year from February 1 to April 30.
- Current and former employees, or their representatives, have the right to access injury and illness records. Employers must give the requester a copy of the relevant record(s) by the end of the next business day.
- OSHA Forms 300, 300A, and 301 must be retained by the company for 5 years following the end of the year to which they relate.
- Employee medical and exposure records must be retained by the company for the duration of employment plus an additional 30 years.
- The Director of Production must ensure that the following records are created and retained:
  - All OSHA reports
  - Safety inspection reports
    - Project site inspection reports
    - List of all equipment in use (including inspection schedules and service dates)
    - Equipment inspection reports
  - Accident reports (including initial reports and investigation reports)
  - Employee safety rule violation reports
  - Training records
    - Employee Acknowledgement of Receipt of Safety Manual
    - Safety Training Event reports
  - Safety meeting minutes
  - Reference materials
    - Tool and equipment manuals
    - Material Safety Data Sheets (MSDS)
  - Medical & Exposure Records



## Reporting Requirements

- See current OSHA requirements at <[www.osha.gov/recordkeeping](http://www.osha.gov/recordkeeping)>.
- Employer is required to notify OSHA when an employee is killed on the job or suffers a work-related hospitalization, amputation, or loss of an eye. A fatality must be reported within 8 hours. An in-patient hospitalization, amputation, or eye loss must be reported within 24 hours.
  - OSHA national toll free number: 800-321-OSHA (6742)
  - OSHA regional office in Boston: 617-565-9860
- General requirements for recording incidents:
  - Employer must record all work-related fatalities.
  - Employer must record all work-related injuries and illnesses that result in days away from work, restricted work or transfer to another job, loss of consciousness or medical treatment beyond first aid.
  - Employer must record significant work-related injuries or illnesses diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.
  - Injuries include cases such as, but not limited to, a cut, fracture, sprain, or amputation.
  - Illnesses include both acute and chronic illnesses, such as, but not limited to, a skin disease (i.e. contact dermatitis), respiratory disorder (i.e. occupational asthma, pneumoconiosis), or poisoning (i.e. lead poisoning, solvent intoxication).
  - Work-related injuries, illnesses and fatalities are those in which an event or exposure in the work environment either caused or contributed to the condition. In addition, if an event or exposure in the work environment significantly aggravated a pre-existing injury or illness, this is also considered work-related.

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# Training

Training in occupational health and safety is not a one-time event. Rather, it is a periodic and ongoing process intended to keep all employees actively alert to how we can protect our health and safety.

## (A) TRAINING MODULES

- Each training module will specify:
  - Content outline
  - Intended Trainee(s)
  - Intended Trainer(s)
  - Frequency
- All new employees, upon hiring, will receive training in:
  - SMCo “Health and Safety Rules” (in entirety)
  - Safe operation of specialized tools and equipment
- All employees will receive periodic in-service training in:
  - SMCo “Health and Safety Rules” (in parts)
  - Safe operation of specialized tools and equipment
  - Safe use of specific hazardous materials
  - First aid and CPR
  - Lockout-Tagout procedures
- All Project Leads will receive periodic in-service training in:
  - Conducting routine occupational health and safety meetings and encouraging employees and trade partners to develop safe work practices
  - Conducting routine occupational health and safety inspections

- Conducting accident investigations
- Lockout-Tagout procedures
- Confined Space procedures
- Managing personal protective equipment
- Managing emergencies
- Recordkeeping requirements

### **(B) TRAINING ADMINISTRATION**

- Training reports must include: training dates, training location, training topics, trainer names and signatures, trainee names and signatures.
- Training report copies go to:
  - Individual employee file
  - Director of Production's safety file

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## Failure to Observe Policies

If LT determines that an employee has failed to observe any policies in the *South Mountain Company Occupational Health & Safety Manual*, LT will review the matter and decide an appropriate response, including any need for corrective action up to and including termination of employment.

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## Forms, Resources & Contacts

All safety forms, resources, and emergency contacts are available on the SMC Co Smartsheet SAFETY page



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