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Driving Safety

important to be able Page 5 to recognize and Long-distance understand all the components of Stop

including what the action entails, who is responsible for implementing it, when/where one would need to implement it, and most importantly, why they should implement it.

The following is a concise outline designed to help workers comprehend all the elements surrounding Stop Work Authority:

What exactly is Stop Work Authority, and what does it entail?

Stop Work Authority is the immediate action of temporarily or permanently shutting down work operations due to a change in conditions, or after any unsafe condition is identified or had already occurred. After work is stopped, anyone in imminent danger should first be removed from the situation, so long as it is safe to do so. Then, the appropriate personnel can be notified utilizing the involved party's notification procedures. The situation should be reviewed to evaluate the most effective resolution to eliminate or reduce the condition's severity. If and when a resolution is determined, authorized personnel should implement and communicate the course of action, as well as the ability to resume work operations. Lastly, it's

Stop Work Authority

Stop Work Authority is

one of the most

effective measures in

eliminating a safety

incident from occurring

in the workplace. With

that being said, it's

Work Authority,

By Kristina DeLuca - Islandia, New York

important to record the instance and follow up with the involved parties to ensure they are continuing to safely proceed with work using the agreed upon mitigations.

Who is responsible for implementing Stop Work **Authority?**

There should be no designated individual assigned to implementing Stop Work Authority. It should be the responsibility of ALL employees at a jobsite to stop work when there is the potential for immediate danger to life and health.

When/where would one need to implement Stop Work Authority?

Stop Work Authority should be implemented whenever there is a change in conditions or after any unsafe condition is identified. Such conditions can include a change in scope, gap in knowledge, unsafe

hazards, behaviors, actions, environment, and/or imminent danger to life and health.

Why should one implement Stop Work **Authority?**

Overall, it's important

to implement Stop Work Authority not only to prevent and reduce incidents, but to also empower individuals to speak up when they believe their work environment is being compromised. When a worker is given the power to create and maintain a safe and comfortable work environment that is free of loss, everybody wins.



Digging For Safety: Subsurface Clearance Protocols

By Tyler White - Logan Township, New Jersey

According to the Common Ground Alliance Damage Information Reporting Tool, each year, roughly 400,000 underground utilities are struck during subsurface work. Of those utility strikes, the most commonly damaged utility is telecommunication lines, making up nearly half of all reported cases. The following equipment are the top three most frequently responsible for utility strikes: 1) backhoes; 2) hand tools; and 3) drilling/borings. The environmental industry utilizes all three of these pieces of equipment on a routine basis. Many of these incidents can be prevented by following proper subsurface clearance procedures. Below are a series of steps to ensure subsurface work is being completed in the safest manner possible.

Pre-planning:

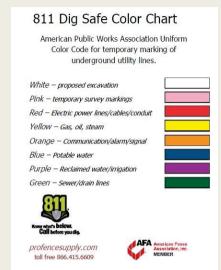
Pre-planning is a necessary step prior to mobilizing to a job site, but it's often the first to be missed. Pre-planning is not just one activity, it's a multitude of different activities. This includes obtaining all necessary permits, ensuring all appropriate parties are aware of the proposed work. Researching for previous surveys, borings logs, site photos, and as-built drawings is also an essential step. These items can provide information on underground/aboveground structures, lithology, and subsurface/overhead utilities that exist at the site from current or former operations. When applicable, corresponding with current or former owners/tenants about utilities is a great resource.

Utility Mark-out:

By law, it is required to notify 811 One-Call before you dig: a free public mark-out service that will mark known subsurface utilities on public property. The service can be contacted by either dialing 811 or visiting their state-specific website (www.Call811.com).

Depending on your state's requirements, One-Call mark-outs will be completed within specified working days after the request has been submitted. It is important to review the ticket to identify any non-responses. If there is any suspicion of utilities in the area, an emergency mark-out can be requested the day of the work depending on your location. Subsurface work must not be started until all utility companies have cleared. Since the One-Call service only provides utility location on public property, it is good practice to perform a private mark-out to ensure subsurface utilities on private property are cleared. Though this is not required by law, it is highly recommended and considered a best practice.

As displayed in the chart below, each color painted on the ground correlates to a specific utility type. This color code is the same throughout the country.



At the conclusion of the mark-out(s), the job is not quite complete. Be sure to conduct a site in spection to determine if any potential utilities were missed.

Execution:

The work area should be cleared of hazards before breaking ground.

Prior to conducting any intrusive mechanized activities, Roux requires hand-hug test holes or other soft digging techniques be performed for the first 5 feet below land surface at each location. This pre-clearance technique must be done more than twice the diameter of the mechanized tooling. In the case of excavations, all utilities marked must be exposed by hand, and pre-clearance may be performed using the "moat" technique, which is soft digging around the perimeter of the excavation. It is important to provide a diligent oversight and look for signs of utilities while digging, such as utility tape, pea gravel, any non-native material, or unexpected refusal.

Even with the proper precautions in place, there is still a possibility to contact an underground utility. If utility damage occurs, Stop Work Authority must be used immediately. Everyone should exit the work area to a safe location, assess the situation, and notify all required personnel and operators.

Follow-up:

It is important to save and upload the geophysical reports, field drawings, and any executed subsurface utility clearance checklists after work is complete. The

site plans should be updated to reflect the new utility mark-outs. Any health and safety issues or concerns should be appropriately addressed in the site documents, as well as discussed with the project and health and safety teams.





Home Improvement Safety

By Alec Piironen - Oak Brook, Illinois

What better way to spend quarantine than taking care of those lingering (maybe dreaded) tasks around the house! Whether it's a complete rehab or minor touchups, the path to a safe and successful home improvement starts with a bit of research and a solid plan. No matter the complexity of the task, home improvements can present similar safety hazards to what we may encounter on work-related projects, so it is important to bring Roux's safety culture home with you.

Research

To safely complete any home improvement task, the first step is to do some research and gain an understanding of the means and methods to successfully complete a Do-It-Yourself (DIY) project. The following are some questions to ask yourself when considering the task at hand:

- Are specialized tools needed? Do I know how to use these tools?
- Is a permit required? Is this task typically completed by a licensed professional?
- What are the risks Additional costs or safety?

Thanks to the Internet, we can use quite a few resources when researching a project, such as DIY forums, contractor forums, local government ordinances, and video-sharing platforms. Note: It is important to use critical thinking to evaluate sources; not all authors are experts.

Common Home Improvement Hazards

The following are some common home improvement hazards and safety considerations for your DIY project:

- Slips, trips, and falls Space can be limited in your work area, so be sure to keep your work area clean and organized. Store tools away when not in use in a designated spot.
- Ergonomics Whether installing floors or a curtain rod, it is important to maintain appropriate body positioning and task specific equipment, such as knee pads or a back brace, to prevent strain/injury.
- Dehydration/Exhaustion Indoor work areas can have restricted airflow and elevated temperatures, so be mindful of hours worked and plan breaks for meal/beverage intake.
- Contact Hazards Use proper personal protective equipment (PPE) to avoid cuts and bruises from sharp/bladed equipment and/or falling objects.
- Utilities Just like underground utilities at a

- job site, utilities in your home must be located and addressed prior to appropriate work. When needed, safety measures must be taken, such as de-energizing a fuse box or shutting off water and gas lines.
- Exposure to Vapors and Dust Be mindful of paints, adhesives, household chemicals, and particulates; most manufacturers provide warning labels for basic safety precautions, although it is recommended looking up the chemical's Safety Data Sheet (SDS) online.

Plan

Once you have completed your research and are confident in your decision to take on the task, it is time to formulate a plan. Things to consider:

- Steps to Completion Walk through the steps and make a note of which tools andmaterials are needed, and which safety hazards you should prepare for.
- Equipment Purchase or rent appropriate equipment to complete the task safely. You can often purchase prefabricated materials and reduce the costs and hazards of using unfamiliar power equipment. At a minimum, it's always recommended to have cutresistant work gloves, hard hat, steel-toe boots, protective eyewear, and a particulate filter/vapor respirator, as needed.
- Safety Plan to remove or mitigate hazards present by turning off circuit breakers, clearing the workspace, and using appropriate of Personal Protective Equipment (PPE).



You Are Ready to Go!

With the proper research and planning, anyone can take on a home improvement project safely. The first project will be a learning experience, no doubt, but this project will not be your last. Take your time and stay safe!



Recognizing Workplace Hazards

By Katherine Grellman - Oakland, California

After a recent rain, I stepped outside for a morning walk, slipped, and fell on the wet front steps of my house. I landed hard on my shoulder and ended up in Urgent Care. Hazards are everywhere; whether you're conducting a Phase I site visit, overseeing a drill rig operation, or working in your office, there is always some risk involved with the activity at hand. At work, these risks are considered workplace hazards. The Occupational Safety and Health Administration (OSHA) defines a hazard as the potential for harm (physical or mental) that, if left uncontrolled, can result in an injury or illness. To ensure a safe work environment, workers have a responsibility to actively recognize and mitigate potential hazards. In order to mitigate such hazards, incorporating the risk assessments outlined below can help individuals avoid losses.

Risk Recognition

The first step toward staying safe and mitigating the likelihood of an accident or injury is to identify potential hazards. Risk recognition should occur before and during work activities, as well as after incidents occur. Ask yourself the questions, "What could go wrong? What is the worst thing that could happen if something were to go wrong?"

Because hazards exist in many different forms, it can be helpful to familiarize yourself with the different types of hazards using the following categories as a guide:

- Exposure Extreme temperature, radiation, noise chemical burns, hazardous atmospheres, animals, insects, and/orants
- Caught/Crushed The potential to get caught in, under, between, and/or by objects
- Ergonomics Lifting/carrying/pushing/pulling heavy objects, bending/twisting/squatting, over-reaching, repetitive/static tasks, contact/stress vibration, and/or any other situations that put strain on the body
- Contact The potential to get struck against or by objects, and/or harmful contact with sharp edges
- Fall Same level or from heights, uneven terrain, unstable ground, wet/slippery conditions, and/or inadequate housekeeping
- Energy Source Subsurface or overhead utilities, electricity, pressure, and/or rotating equipment

Of course, the risk for hazards can be increased by factors outside of these categories, too. For example,

workers can heighten the probability of an incident if they are inexperienced, tired, and/or communicating poorly. The type of environment itself can also heighten the probability of an incident because each is complicated and unique. Safety concerns are present everywhere; hazard identification requires being observational, vigilant, and using your best judgement to address and prioritize the concerns at hand.

Risk Analysis

Once a workplace hazard has been recognized, it must be properly managed to prevent any harm. Evaluating the risk requires good judgement—and in some cases creativity—to think of ways to reduce the danger. Ask yourself, "Do I have all the necessary training, tools, and equipment to perform the job safely?" Start a conversation with your fellow workers to determine the most effective ways to avoid a potential incident. Everyone should be aware of the hazard, the steps necessary to mitigate the hazard, and the action plan moving forward.



Work Safely

If possible, a hazard should be eliminated so it no longer poses a threat to workers or the environment. For instance, if your shoelace is untied, the best action is to tie your shoelace to prevent tripping. If a hazard can't be fully eliminated, substituting the material or process with one that is less dangerous is the next best move. One can also implement engineering and administrative mitigations to control the hazard. Another control for protecting workers is the use of personal protective equipment (PPE) to reduce exposure risk, which is required at all Roux sites. Lastly, if you are even the slightest bit unsure of something, don't hesitate to ask for help! It is essential to communicate with others to gain a broader perspective on how to tackle a work task safely, especially if you're unsure how to proceed.



Long-distance Driving Safety

By Jason Unkefer - Houston, Texas

Most of us have been required, whether for work or personal reasons, to undertake long-distance drives. Such drives can significantly differ from the

requirements of one's daily commute or running personal errands. Incorporating proper planning and modifying behaviors are the keys to safe long-distance

driving.

Preparing for the Long-Distance Drive

Being properly prepared for an extended drive is just as important as your actions during the drive. The following are some tips for preparation:

- Check the overall condition of your vehicle.
 - Fluid levels and top off, if appropriate
 - Tire condition and pressure (also condition of your spare)
 - Heat/AC/electronics are in working order
 - Headlights/signal lights/brake lights are in working order
 - Condition of your windshield wipers and replace if needed
 - Check weather conditions for the area you are traveling to and from

If you are in a rental vehicle, check all the above and familiarize yourself with the locations of controls and the handling of the vehicle, since it likely differs from your personal vehicle. Rental vehicles are often newer models compared to our personal vehicles, which can have unfamiliar driver assistance and accident-avoidance systems that may engage without warning while driving.

You should also have a roadside emergency kit, particularly when severe weather is forecast. The kit should include:

- Cell phone, charging cords, and an emergency charging battery
- First-aid kit
- Fire extinguisher
- Warning light, hazard triangle, or flares
- Jumper cables
- Windshield scraper
- Tow strap
- Blanket, extra clothes, raincoat, and winter hat
- Water and non-perishable food

- Folding shovel and bag of kitty litter or salt for slippery conditions
- High-visibility vest



During the Long Distance Drive

Fatigue and "highway hypnosis" are among the most common risks posed by a long-distance drive. The following are some tips to prevent potential fatigue-related hazards:

- Get adequate sleep (at least eight hours)
- Take regular breaks every 100 miles or two hours of travel
- Avoid traveling between 1 and 3 pm, when the body's temperature is lower, and drowsiness is most likely to occur
- Bring healthy road snacks (nuts, vegetables, or other low sugar snacks)
- Stay hydrated
- Chew gum, which can increase alertness and blood circulation
- Consider an energizing scent for the vehicle interior
- Listen to the radio, audiobooks, or podcasts

After a Long-Distance Drive

Even after the drive, you must remain aware that the long travel might lead to fatigue and errors in judgement if your travel coincides with a full workday. Practice extra vigilance in the late afternoon and take more frequent breaks to avoid impaired judgment caused by fatigue.

Through proper preparation, the right mindset, and attentive driving, you will make it to your destination safely even on those long-distance trips.