

# WORKING TOGETHER SAFELY—STANDARDS FOR THEOCRATIC CONSTRUCTION AND MAINTENANCE

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## TO ALL VOLUNTEERS

Dear Brothers:

As the “Grand Creator,” Jehovah God considers life sacred and highly valuable. (Eccl. 12:1; Ps. 36:9) As his servants, it is a reflection of our spirituality when we have the same viewpoint. (Eph. 5:1) Therefore, we do not take unnecessary risks or disregard established safety standards. (Deut. 22:8; Eccl. 10:9) We sincerely love our brothers, and thus we endeavor to apply Scriptural principles so as to protect ourselves and others from physical harm.—Prov. 3:21, 22; Phil. 2:4.

One basic Bible principle states: “The shrewd one sees the danger and conceals himself, but the inexperienced keep right on going and suffer the consequences.” (Prov. 22:3) There can be serious consequences if such advice goes unheeded! This principle stresses that each of us needs to do all we can to protect life, and this is especially true when it comes to construction and maintenance operations. When a dangerous situation is not avoided, serious injury or death can occur. Words cannot express the physical and emotional impact this can have—it is devastating. All of us, therefore, have a moral and spiritual responsibility to work safely! Our goal is to achieve an accident-free environment in all theocratic buildings and projects. This can be accomplished if each one views safety as a reflection of their personal relationship with Jehovah.

This document contains two parts: Part A must be read and signed by anyone working on a construction or maintenance project. Part B must be read and signed by those who are approved to work in higher-risk areas or with higher-risk tools and equipment. It provides *minimum* safety standards as part of a safety-awareness program outlined by the organization. In some cases, oversight may inform you of more stringent standards based on local laws, the project being worked on, and/or other circumstances. There may be circumstances that are not covered by a specific standard in this document. In those cases, use the principles outlined to determine the safe course of action.

Overseers are to make sure that everyone under their supervision is properly trained and qualified for the work they are assigned to do. Volunteers should willingly cooperate with such training and pay attention at all safety meetings. All are expected to promote safe work practices through their speech and personal example and to work for the safety and well-being of others working around them. Those not doing so may not qualify to work on theocratic projects.

As we work closely together, it is vital that we not only know the standards contained in this document but also do all we can to work safely, showing our appreciation for the gift of life. We pray for Jehovah’s continued blessing on our theocratic projects—all to his praise. (Ps. 127:1) Thank you for your conscientious support.

## STATEMENT OF COMMITMENT

I understand that all construction sites have potential hazards. I also understand that God's Word says that safety and respect for life must be taken very seriously. (Ex. 21:33, 34; Num. 35:22-25; Deut. 22:8) Therefore, for the protection of myself and others, I am fully committed to working safely.

I will be alert to identify and prevent potential safety hazards. I will not compromise safety to reduce costs, to meet deadlines, or to achieve any other goals.

Before starting a task, I will take the time to plan how to do it in a way that prevents injuries and saves time. Being aware that excessive self-confidence can be dangerous, if I do not understand a task or do not know how to proceed, I will ask my overseer.

I will willingly participate in all safety-training programs and cooperate with the instruction provided by those in oversight.

If I am asked to do a task for which I do not feel competent or for which I feel is unsafe, I will advise my oversight and await direction.

- ☐ I have read Part A of this document in its entirety, I am in complete agreement with what is stated, and I will implement its directives.
- ☐ I have read Part B of this document in its entirety, I am in complete agreement with what is stated, and I will implement its directives.

**Date:** .....

**Volunteer:** .....  
(Sign or type name)

This is your personal copy. Please regularly refer to this document before working on theocratic construction and maintenance projects and before performing tasks that involve a measure of risk.

## Part A

### ACCESS CONTROL

*The only ones allowed to work on theocratic projects are volunteers with approved applications and those approved by the elders to work on their own Kingdom Hall.*

- Each construction project site will contain one or more restricted zones, which are accessible only to authorized persons. The restricted zones consist of general construction areas and higher-risk areas.

**General construction areas** include all zones where construction of any type is taking place.

**Higher-risk areas** include any zone where the following are taking place:

- Structural demolition
  - Working on a roof
  - Working on an elevated platform 6 feet (1.8 m) or more in height
  - Working in trenches or excavations 3 feet (0.9 m) or more in depth
  - Working in a confined space
  - Working in close proximity to heavy equipment, welding, or other hazardous processes
- Those in oversight must make sure that these areas are clearly marked and that the access points are monitored. Signs, barriers, safety marking tape, and other means should be utilized.
  - Volunteers must comply with all the direction provided regarding these restricted zones.
  - Visitors to the site should not be allowed into the construction areas unless specifically approved by project oversight. Approved visitors should be accompanied by a qualified individual familiar with the risks and layout of the site. All visitors must wear appropriate protective equipment, including hard hats and proper shoes.

**NOTE:** Restricted zones may not apply on small remodel projects or maintenance and repair work. However, all other safety standards outlined in this document should apply. Ask your overseer for direction when doing such work.

### AGE REQUIREMENTS

#### General Construction Areas

*Volunteers may work on a construction site at 17 years of age if they are properly supervised and the local law permits. However, they are prohibited from performing certain tasks, such as the following:*

- Driving a motor vehicle or operating heavy equipment, including but not limited to forklifts, cranes, skid steer loaders (Bobcats), and grading tractors.
- Operating power-driven machines and pneumatic, powder-actuated, or power tools, including nail guns, circular saws, table saws, band saws, chain saws, drills, grinders, lasers, and similar types of tools.
- Working in higher-risk areas.

#### Higher-Risk Areas

*Volunteers must be at least 18 years of age to work in higher-risk areas. They must also be properly trained and authorized by oversight to do so.*

## ATTIRE AND PERSONAL HEALTH

*Have an electronic or a hard copy of “Working Together Safely” with you whenever you are on a project. Additionally, carry your durable power of attorney (DPA) card on your person at all times.—km 1/10 7; km 12/04 7.*

- All must wear clothing that is protective and suitable for the work being done.
- Clothing should be modest, not tight or revealing, regardless of working posture.
- Long pants and shirts with either short or long sleeves should be worn by all volunteers.
- Jewelry, including rings, bracelets, necklaces, and hanging earrings, pose a hazard and should not be worn.
- For sisters, long hair should be tied back while working.
- Come to work well rested and in good physical condition.—g04 2/8 3-9.
- Beware of heat exhaustion, sunburn, and overexposure to the sun in warm climates.
- Beware of hypothermia and frostbite in cold climates.
- Take your time navigating potentially slippery areas, especially on snow and ice.
- Prevent dehydration. Drink plenty of water, especially during hot and humid weather.—g98 3/22 31.
- Never drive while tired. Take a nap or have someone who is rested do the driving.—g 7/11 11.
- Modesty requires that you recognize your physical limitations, especially if you are of advanced age, have suffered previous injury, are suffering an illness, or have a medical condition.—Mic. 6:8.

## WORK HABITS AND CONDUCT

*Work at a reasonable pace and in such a manner as to ensure your safety and that of others. (g02 2/22 4-7; g85 7/8 4-8) Any suggestions to enhance safety are greatly appreciated. Please convey them to your overseer. If you see or are asked to complete a task that appears unsafe, stop and ask for clarification.*

- Immediately correct unsafe actions brought to your attention.
- Make it a habit to look for, identify, and quickly correct unsafe conditions.
- Practice proper lifting techniques, and display modesty by getting help when carrying heavy or bulky materials.—g94 6/8 24.
- Working alone is unsafe and should be avoided.
- Never work alone when engaged in higher-risk activities defined above.
- Alcoholic beverages impair your ability to work safely and should never be consumed shortly before or during work or brought onto a site or project.
- Horseplay (playing tricks on your workmates) and practical jokes often lead to injury. Those who engage in them may not qualify to work on site.—Prov. 26:19.
- Volunteers who continue to disregard safety standards after being warned will not be allowed to remain on the project.
- Do not minimize near misses. Report them to both your overseer and the one designated to care for safety. This may help prevent injuries in the future.

## INJURIES AND EMERGENCIES

*If an incident involving injury occurs, the following standards are intended to lessen any adverse effects. All workers on-site must know what to do in case of an injury or other emergency.*

- Remove any immediate hazard that could cause further injury. (For example: Turn off energized equipment.)
- Keep the injured person still and calm.
- Do not move the injured person unless there is danger of further injury.
- Head, neck, and eye injuries require immediate attention by qualified emergency personnel.
- Generally, only assigned safety personnel should call the local emergency number.
- Do not minimize injuries. Report them to both your overseer and the one assigned to care for safety. This may help prevent further injury and lead to the creation of procedures that would prevent an injury in the future.
- All volunteers should know where the assigned meeting point is in case of emergency.
- Safety personnel and overseers must report all incidents, including near-misses using the *Incident Report* (TO-5) form promptly. Any serious bodily injury or major property damage should be reported *immediately*.

## HOUSEKEEPING

- Keep work areas clean and free of clutter. Remove trash/debris as soon as possible. Use designated areas and bins or receptacles designed to hold the specific type of debris being disposed of.
- Give special attention to removing debris that can cut or puncture. If a hazardous object cannot be removed, care should be taken to make it as safe as possible.
- Dust may contain unknown hazards, therefore sweep in a manner that limits its becoming airborne.
- Make sure walkways and other locations are clear of power cords and hoses that might cause tripping or be damaged. If cords or hoses cannot be moved to a safer location, ensure that they are firmly fixed in place.
- Maintain clear access to fire extinguishers and electrical panels.
- Store materials in a way that does not block exits, aisles, passageways, and stairways.

## FIRE SAFETY

- Learn the location and proper operation of fire extinguishers.
- Dispose of rags properly. Those that have soaked up combustible liquids must be put in approved metal containers. Never hang such rags to dry, pile them up, or mix them in with other trash.
- Store gasoline and flammable liquids in certified, approved safety containers. Never use gasoline for cleaning purposes. Gasoline should not be stored inside of any buildings.
- Do not store liquefied petroleum gas (LPG) cylinders in enclosed areas. Protect cylinders from impact, and ensure that they are always stored upright.
- Always provide adequate ventilation when burning combustible fuels in enclosed areas to prevent carbon monoxide poisoning.

- Be alert to ignition sources, and take preventative measures to avoid explosions and fires. Combustibles should be moved away from any open flames or work that could create sparks or high heat.

## **FOOD SAFETY AND PERSONAL HYGIENE**

- Before being assigned to work with or serve food, all volunteers should be properly trained in the basic principles of food safety and should maintain exemplary personal hygiene.
- Those handling and preparing food should wear disposable sanitary gloves, which should be disposed of after each period of work and before working with a different category of food.
- Hair restraints should be used when working in food preparation and serving areas so as to prevent hair from falling into the food.
- Food handlers, preparers, and servers are to wash their hands when reporting and when returning to work.
- Persons with colds, communicable diseases, and unprotected open cuts/sores should not be in food-preparation areas.
- Blood-borne pathogens can cause disease. Avoid contact with another person's blood. If a tool, utensil, or material is contaminated with blood, it should be properly cleaned with a mixture of 10 percent bleach and 90 percent water prior to being used again.—g 3/11 7.
- Refrigerate perishable food items within two hours. Keep meats and dairy products refrigerated until ready for cooking. Refrigeration can inhibit the growth of dangerous bacteria. The temperature should be less than 5°C (45°F). In some cases, food can be safely stored at a high temperature above 60°C (140°F). If food is cooled to be used for another meal, reheat the food to a temperature of 75°C (165°F).—g01 12/22 9.

## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

*Appropriate PPE should be worn on any construction project as well as maintenance projects that involve risk of injury according to the “Job Hazard Analysis” for the area. PPE must be in good condition, fit properly, and be comfortable enough to work in all day. Invest in high-quality PPE. Your overseer may require you to wear additional forms of PPE as necessary.*

### **Hard Hats**

- Always wear certified, approved hard hats in construction areas.

### **Eye Protection**

- **Safety glasses:** Always wear certified, approved safety glasses inside construction areas and when doing maintenance work. (Certified, approved prescription safety glasses with side shields or over-the-glass safety glasses are acceptable.) Replace safety glasses if they become scratched or hinder visibility.
- **Goggles:** When working with chemicals or liquids, wear certified, approved splashproof goggles per the Safety Data Sheet (SDS) instructions.

### **Face Shields**

- When drilling overhead, grinding, or chipping or when flying debris makes safety glasses insufficient, wear certified, approved face shields over safety glasses.

### **Dust Masks**

- Wear high-quality dust masks appropriate to the task when exposed to concentrations of dust and/or airborne debris. Replace the dust mask when clogged, torn, or otherwise damaged in a way that would prevent it from functioning as intended.

## **Respirators**

- Wear properly fitted, certified, and approved respirators when you are exposed to smoke, mists, fumes, sprays, and vapors or when other respiratory hazards exist.
- Proper respirator and cartridge choice are critical; replacement schedules must be followed.
- Each volunteer is responsible to maintain his own respirator.

## **Hearing Protection**

- Prolonged exposure to noise can result in hearing loss. Use earplugs or earmuffs in high-noise work environments.

## **Hand Protection**

- Wear work gloves appropriate to the task.

## **Knee Protection**

- Wear properly fitted kneepads when work requires kneeling on hard surfaces for extended periods of time.

## **Work Shoes**

- Work shoes appropriate for the type of work being done are required. Open-toed shoes or sandals are not permitted. Safety shoes certified for the type of work being completed should be used where required by law or as directed by oversight for the project.

## **Safety Vests**

- Wear safety vests or high-visibility clothing on a site when moving vehicles or equipment are present.

## **GENERAL TOOLS AND LADDERS**

*All tools and ladders are subject to inspection by safety personnel, and all safety features and attachments must be employed per the manufacturer's directions.*

### **Hand Tools**

- Every tool is designed for a certain job and should be used only for that purpose.
- Inspect hand tools regularly. Keep cutting tools sharp. Repair defective or damaged tools immediately, or remove them from the project.

### **Ladders**

*Use ladders only when the "Job Hazard Analysis" indicates they are appropriate for short duration and low risk work.*

- Inspect ladders for broken rungs, cracks, or other defects. Tag defective ladders, and remove them from the site.—g99 8/8 22-24.
- Always place ladders on a stable base.
- Generally, ladders should be erected using a 4:1 ratio: For every 1.2 m (4 feet) of working length, the base should be placed 0.3 m (1 foot) from vertical.
- Always face a ladder when ascending or descending, and maintain at least three points of contact with it at all times (for example, both feet and one hand).
- Use a tool belt or other means to haul materials.
- Avoid leaning past the side of a ladder. Relocate the ladder if the work requires it.
- Keep the area at the top and bottom of ladders clear at all times.

- Do not use ladder rungs to support the ends of planks or other similar work platforms.
- Do not use buckets, boxes, or other unstable objects as makeshift ladders to access elevated areas.
- Warning signs must be posted or an attendant should be on hand if a ladder is put in front of a doorway.
- Never stand or sit on or above the top two rungs of any ladder.
- Allow only one person on a ladder at a time unless the ladder is specifically designed for two people.
- Stepladders should not exceed 3 m (10 feet) in total height or be manned above 1.8 m (6 feet) unless fall protection is provided.
- Extension ladders that are used to access an elevated platform or a roof should extend at least 0.9 m (3 feet) above the landing, be inclined at a 4:1 ratio, and be secured at the top and bottom to prevent movement.

## **SERIOUS SAFETY VIOLATIONS**

### **Lockout/Tagout**

- Locks and tags must be used to prevent the operation of a switch, valve, or piece of machinery in cases where someone is working on or near equipment or when equipment may be damaged from operating it.
- Locks and tags on a power source are a warning to others not to activate the power switch or the equipment. Anyone who removes/breaks a locked and tagged power source without receiving approval from the one who locked and tagged it may be immediately removed from the site.

### **Confined Spaces**

- Oversight must post warnings on enclosed spaces where entrapment, being crushed, suffocation/asphyxiation, or electrocution could occur. Only designated, competent persons (trained and certified, if required) with proper protection can enter a confined space and then only when accompanied by someone outside of the confined space. Anyone entering a properly posted confined space without specific training and approval may be immediately removed from the site.

## **MISCELLANEOUS SAFETY CONCERNS**

### **Safety Data Sheets (SDS)**

- Where jurisdictions require it, chemical manufacturers provide SDS information on the hazards associated with the chemicals they sell and the PPE needed to protect oneself while using their chemicals. Whether or not required by the jurisdiction, the safety personnel will keep a binder/folder of information with all the known hazardous chemicals used on the project. Safety personnel should ensure that all records in the SDS binder are no more than three years old. If any chemicals are to be used in a task, the hazards of working with those chemicals should be understood by those using them, and all working with them should know where to find the information. Notify the department overseer when bringing hazardous material on-site.

### **Refrigerant Gas**

- A competent person with refrigerant certification must perform any work with refrigerant gas.
- Refrigerant cylinders should be safely stored in an upright position and not exposed to toppling.



## **Part B**

### **HIGHER-RISK TOOLS AND EQUIPMENT**

*An authorized person may be required to inspect or supervise the use of higher-risk tools or equipment. All power tools should be labeled to include an identification number and ownership. A log may be kept to record repairs and inspections.*

#### **Power Tools**

- Only trained operators should use power tools.
- Examine power tools for damaged parts and frayed/cut electric cords before each use. If the electric cord has a cut or is frayed, have it repaired before continuing to use it. The tool should be tagged until the repair can be completed.
- All power tools must be grounded or double insulated. If the ground has been disabled or the tool is defective in any other way, the equipment should be taken out of service immediately for repair or replacement.
- Do not use power tools with improper or damaged guards or with guards removed.
- Disconnect power tools from their power source when replacing blades or bits.
- Power tools should only be used in the method and for the purpose initially intended by the manufacturer.

#### **Powder-Actuated and Pneumatic Tools**

- Only trained operators should use powder-actuated and pneumatic tools. Worker qualification is required. Additional certification may be required when controlled by local jurisdiction.
- All operators and volunteers nearby must wear appropriate eye and ear protection.
- Do not load powder-actuated tools until ready for use.
- Do not leave a loaded tool or any cartridge/shots unattended. (For example: Hilti gun or nail gun).
- Only use fasteners specifically designed for the material being penetrated.

#### **Lasers**

*Lasers can cause eye damage.*

- Only trained operators should use laser equipment. Worker qualification is required.
- Set up lasers at a level where the beam cannot directly enter anyone's eyes.
- Employ laser beam shutters or caps when the laser is turned on but is not in use.
- Turn off laser equipment when transmission is not required.

#### **Motorized Vehicles**

- All on-site/off-site drivers who shuttle workers, run errands, and transport materials related to the project should be on an approved list of drivers for that project.
- Driver and any passengers are to wear seat belts at all times.
- Drivers are not permitted to use cell phones while vehicles are in motion. Texting while driving is not allowed. Anyone doing so will be taken off driving duty and may be asked to leave the project.
- Drivers should be alert to changing road and weather conditions. Pay close attention to posted speed and traffic signs. Exercise caution when entering turns, and brake to an appropriate

speed in advance.

- Only use vehicles that are in a safe condition, properly registered, adequately insured, and meet all regulatory requirements.
- Passengers should be transported in an approved seating area only.
- Turn off gasoline-powered vehicles before fueling.
- Properly secure all loads. Under no circumstances should anyone ride on top of loads.
- Oversized loads must be properly flagged.
- All state and local requirements must be followed when towing trailers. Be sure to use proper safety chains, hitch safety clips, and lighting when needed.

### **Heavy Equipment (Including Cranes and Forklifts)**

- Only trained operators should operate heavy equipment and trucks. Worker qualification is required for theocratic projects, and additional approval may be required according to jurisdiction.
- Wear seat belts at all times when supplied by the manufacturer.
- Cell phone use is not permitted while operating construction equipment unless used to directly communicate with spotters or other personnel in the completion of the task at hand.
- All equipment should be in a safe condition and meet all regulatory requirements, including copies of the required current testing certificates and insurance documentation (if required).
- Passengers should be transported in an approved seating area only.
- All alarms and horns must be operational.
- Trained operators must calculate and manage the capacity of their machines.
- Properly trained flagmen and/or spotters must be in use when work is near pedestrians or vehicular traffic and when backing up for extended distances.
- All heavy equipment and trucks must stay at least 3 m (10 feet) away from overhead power lines.

### **Additional Requirements for Cranes and Forklifts**

- A competent person must inspect the rigging before each lift.
- No one should be allowed under a suspended load.
- Access to lift areas must always be controlled because of potential crush hazards from rotating cabs and swinging loads. Only workers directly involved with the activity are allowed in this area.
- Hazardous areas should be marked around cranes to delineate a controlled access zone.
- Approved signalers should be used where required.

### **Scissors and Boom Lifts**

- Only trained operators should use and inspect scissors and boom lifts. Worker qualification is required.
- Exercise special care when operating off-road lifts to prevent overturning. Ensure a solid base is in place prior to operating the lift.
- All volunteers working in a boom lift must wear an approved fall-restraint system all the time that the equipment has power.

- Do not leave an elevated platform without fall protection.

## **HIGHER-RISK AREAS AND TASKS**

### **Fall Protection**

*Falls are the most common cause of serious accidents on construction sites. Fall protection must be established when working from an elevated position of 1.8 m (6 feet) and higher. (This includes work done on ladders.) Special consideration should be given to situations where there is a risk of falling through a surface. Fall protection includes railings, scaffolds, nets, full-body harnesses, lanyards, lifelines, and other approved methods. Remember that simply maintaining a distance from an open edge does not eliminate the need for fall protection.*

- A fall-protection system must be set up under the supervision of a competent person. This person will be responsible for inspections and documentation of all systems. Worker qualification is required.
- Protect or put a cover (cap) on rebar, stakes, lightning rods, or any item that could be an impalement hazard.
- Any floor or roof opening that is larger than 50 mm by 50 mm (2 inches by 2 inches) must be covered. The hole cover must be able to withstand two times the maximum intended load and should be labeled “COVER” or “HOLE” in high-visibility paint. It must be secured from movement and may only be removed by an authorized person.

### **Roofs**

- Provide safe and secure access to the roof.
- Inspect for moisture, frost, or other slipping hazards before getting onto roof surfaces.
- Evacuate the roof when dark rain clouds/storms, high winds, lightning, rain, or other adverse weather conditions threaten.
- An assigned, qualified person should inspect trusses for soundness prior to their erection.
- Do not overload the roof with materials or workers.
- Keep all tools and materials not in use a minimum of 0.6 m (2 feet) from an unprotected edge of the roof.

### **Scaffolding and Platforms**

*Only erect scaffolding under the supervision of a designated, competent person. Plan fall-protection measures during the erection and dismantling process.*

- Place the scaffolding legs on firm footings only, secured from any movement or tipping. Do not use scrap lumber, concrete blocks, or bricks to stabilize the scaffolding legs. Where needed, use heavy-duty solid wood under the legs to support maximum loads.
- Set all scaffolding legs and platforms upright and level.
- Be sure to cover the work platforms with wooden/metal decking.
- Assemble decking on a platform so that no space between the planks exceeds 25 mm (1 inch). Only use planking that is scaffold grade or equivalent.
- Planks must overhang end supports no less than 150 mm (6 inches) but no more than 300 mm (12 inches) unless they are secured at both ends to the scaffold. Always lap planks in the same direction.
- Inspect scaffolding planks on a daily basis. Replace and discard cracked or split planks immediately.

- Inspect metal plank hooks on scaffolding. Replace warped, corroded, or bent hooks.
- Use a ladder or stair tower to access the scaffolding platforms. Do not climb on end frames unless the frames are designed with built-in ladders. Never use cross braces on tubular scaffolding as a means of access or leaving the scaffold.
- Do not work on any scaffolding until an assigned, competent person has approved the complete installation and affixed a sign indicating that it is safe.
- Avoid leaning past the side rails. Relocate the scaffolding if necessary.
- Do not overload the scaffolding with materials or workers.
- Ensure that open sides and platforms 1.2 m (4 feet) or more in height have guardrails and toe boards.
- Do not move rolling scaffolding with volunteers on board when the platform is set 1.2 m (4 feet) or more in height. Lock the wheels when in use.

### **Electrical**

- Only qualified volunteers should perform electrical work.
- De-energize systems whenever possible before working on them.
- All work areas should be well lit.
- Temporary power poles, distribution boxes, generators, and all extension cords must have ground fault circuit protection during construction. Installation should be approved by a qualified electrician prior to use.
- Protect all live electrical installations such as receptacles, switches, cables, and panels from accidental contact.
- Use protective cage guards to cover bulbs used for temporary lighting, and do not allow them to come into contact with combustible surfaces.
- Do not use metal ladders at any time while doing electrical work.
- Maintain at least a 3 m (10 feet) clearance from overhead utility power lines (or more if required by law).

### **Trenches, Excavations, and Shoring**

- Contact your local centralized utility agency to check whether utilities exist in an area before excavation is started. Written confirmation of inspection and approval to dig is required in accordance with local requirements. Consult site plans and other persons with knowledge as to the location of any private installations. Do not excavate until electrical utilities have been deactivated.
- Trenches and excavations that are 0.9 m (3 feet) deep or more (or trenches dug in unstable soil) should be properly sloped or benched, have shoring, or have a trench shield installed before entering. A competent person must approve the shoring design.
- At the beginning of each workday and when weather, soil, or work conditions change, a competent person should inspect all trenches for evidence of a situation that could result in a cave-in or a trench failure before allowing anyone to enter.
- Keep materials, equipment, and stockpiled dirt at least 0.6 m (2 feet) from the edge of the excavation.
- Trenches 1.2 m (4 feet) deep or more should have ladders extending 0.9 m (3 feet) above the trench and within 7.5 m (25 feet) of volunteers for quick escape.

- Where possible, trenches should be opened only as far as needed for the work in them to be completed, and the trench should be closed at the end of the day. When trenches are left unattended or open overnight, they should be properly fenced, barricaded, and protected to prevent people and vehicles from entering.
- Report suspicion of contaminated materials or soil.
- Take immediate mitigation measures when groundwater is encountered.

### **Welding, Cutting, and Open-Flame Work**

*Take fire-prevention precautions in areas where welding, torching, soldering, or other open-flame work (hot work) is being done.*

- Hot work should be performed only when specifically directed to do so and by a qualified individual.
- A suitable fire extinguisher must be at hand when performing any hot work.
- Do not perform hot work near flammable components, including paints or heavy dust concentrations.
- Ensure that a volunteer (fireguard) is present during and at least 30 minutes after any hot work is performed. The fireguard will move combustibles as far as possible from the work and have a fire extinguisher at hand. After the hot work is completed, the area should be patrolled for two hours.
- Protect others in the vicinity from arc-welding flash and cutting operations by using a non-flammable shield barrier.
- Wear eye protection to prevent exposure to arc flash.
- Clothing made from natural fibers (for example, cotton or wool) or an equivalent non-melting fabric must be worn along with proper protective leathers or flame-resistant clothing while performing hot work.
- Compressed-gas cylinders require special handling when being transported, moved, or stored.

### **Building Demolition**

- Specific pre-demolition planning will include structural review by a competent construction professional. When shoring and/or underpinning is required, prepare a specific plan outlining goals, rules, and policies for volunteers.
- Carefully investigate below-grade conditions.
- Locate utility connections, and isolate and/or cap as required.
- Select workers who are qualified for their specific tasks.
- Follow rules for proper handling of materials, such as lead, asbestos, and mold.
- Establish task-specific PPE to protect against such hazards as mold, dust, insulation, and bird or rodent droppings.