TITLE: 2712 SAFETY BOB'S CONSTRUCTION SAFETY ORIENTATION

LENGTH: 21 MINUTES PRODUCTION YEAR: 2007

PROGRAM SYNOPSIS:
With over 25 years of experience as a construction safety professional, Bob Synnett is dedicated to teaching new and inexperienced workers how to stay safe on the job. In this program, Bob stresses that construction work is dangerous and that each person is responsible for his or her own safety on the jobsite. He discusses a variety of safety issues that are vital in keeping construction workers from getting hurt on the job, including PPE, excavation & trenching safety, ladder safety, scaffolding safety, fall protection, electrical safety and the importance of a good safety attitude.

SHOOTING LOCATION: A variety of construction sites and areas where construction work is being performed

PROGRAM OBJECTIVES: After watching the program, the participant will be able to explain the following:
- The types of PPE worn on construction sites and the importance of always wearing it when required;
- Procedures for staying safe when working in and around excavation and trenching operations;
- Safe work practices for working on ladders and scaffolding;
- Types of fall protection and why it is crucial to know which type is necessary and how to use it properly;
- Precautions that must be followed when working with and around electricity;
- General jobsite safety practices required for construction work.

INSTRUCTIONAL CONTENT:

CONSTRUCTION WORK IS DANGEROUS

- A study Safety Bob conducted for a construction company indicated workers with less than six weeks experience on the job accounted for four out of every 10 of that company's accidents.
- Construction jobs are dangerous. Nearly 1,200 construction workers were killed on the job last year; that averages to nearly five workers killed every business day.
- You are the person most responsible for your safety on the jobsite, not your company, not OSHA and not even your supervisor. They can help you, but always remember you are most responsible for your safety.
- You can be careless too. Over eight of every 10 accidents are the fault of employee error. So think before you act or you may be one of the five workers who don't go home today.

PERSONAL PROTECTIVE EQUIPMENT

- Following PPE rules is far more important than you might think. Of course, it's for your protection, but wearing, or not wearing your PPE can also set an example for others to follow your behavior.
- On the construction site, PPE starts with hardhats. Your hardhat protects you from head injuries; you should wear it at all times.
- The same is true for safety glasses because they protect your most precious sense—your sense of sight.
- Every year there are over 300,000 workers who injure their eyes on the job and many of those injuries change a worker's life.
- Wear your hardhat and safety glasses all the time on the jobsite, even if you have to go back to the trailer or your truck, or even ask your supervisor; do it. Your protection and even your future livelihood may depend on using this equipment.
- There are many other types of PPE that you might need depending on your work. They include steel-toed boots, dust masks and respirators, face shields, hearing protection, work gloves and many more.
- Ultimately, PPE on the jobsite comes down to just one important point: wear your PPE every time you need to wear it. Don't use excuses like it's too hot, too uncomfortable or this job will only take a second. Your life can change in a second.
- Do it right; do it safely; let your PPE protect you every time.

EXCAVATION & TRENCHING SAFETY

Soil Types

- To stay safe below ground during excavation and trenching, soil-type knowledge is the real key. That allows even the novice worker the ability to work safely in a trench or an excavation.
- OSHA rates soil types from the most stable to the least. The most stable soil is called Type A.

- Type A soils are so solid and stable that if you performed what's called a thumb penetration test and pressed your thumb into a Type A trench, you could barely dent the trench wall.
- Type B soil is next in line in terms of stability. A thumb penetration in this type of soil would allow you to slightly indent a Type B trench.
- The least stable and most dangerous soil is Type C soil, where the same test would allow you to press your finger freely into a Type C trench wall.
- Water also affects soil type determination because whenever water is present, it downgrades the soil, making any type soil less stable.
- Determining the soil type is extremely important because once that's done, you can decide on how to protect workers in your trench or excavation.

Protection Methods

- Protection methods include sloping back the soil; how you slope back is based on the type of soil.
- Type A soil must be sloped back at least on a ratio of 3/4 to 1. That's 3/4 of a foot back on each side of the trench for every one foot deep.
- Type B must be sloped back on a 1 to 1 ratio and type C, which is least stable, must be sloped back on a 11/2 to 1 ratio.
- On areas where there is no room to slope back, you must use a trench box or some kind of shoring or bracing.
- Protection should always be your first consideration, no matter what the soil or depth. When a trench is unsafe, get out quickly.

Cave-Ins

- Cave-ins happen fast and the results are usually deadly. For example, a South Carolina worker in an unsloped trench was "buried, crushed, suffocated and killed" in the collapse of a trench less than three feet deep.
- An average cubic yard of dirt weighs over 2,500 pounds. So if a cave-in occurs, that dirt delivers a crushing blow.
- Whether you slope it, shore it, bench it, brace it or use a trench box, do something. Make sure your trenches and excavations are safe.
- Do it right; do it safely or your trench might become an early grave.

LADDER SAFETY

- Ladders are used every day; but unfortunately, they're often misused and the results can be deadly.
- Over 300 construction workers are killed every year from falls off ladders. Most have something in common: most were taking a safety shortcut.
- Always inspect a ladder before using it. If the ladder has any broken parts, a missing rung, or if it's bent or damaged in any way, don't use the ladder.
- Make sure your ladder is level and stable before you climb.
- If you're using a stepladder, open the ladder up, locking the arms in place. Don't use a stepladder leaned up against a wall; it could kick out.
- If you're using a straight or extension ladder, place it, extending the ladder three feet above the upper landing; then climb to the top and tie it off.
- Always climb ladders face first with three points of contact on the ladder at all times. Your two arms and two legs are your four points of contact, so when climbing a ladder, three of those should always be in contact with the ladder.
- Always use the right ladder for the job. If you need an eight-foot stepladder, don't use a six-foot ladder.
- Don't stand on the top of a stepladder. It's not allowed and certainly not safe; don't do it, not even for a moment.
- Don't take chances working or climbing on ladders, chances like climbing with too much material, or working off the top or a stepladder, or just leaning out too far to the side of a ladder.
- Do it right, do it safely and live to climb that ladder another day.

SCAFFOLDING SAFETY

- Anytime you're constructing or tearing down a scaffold, that work must be supervised by a qualified person.
- Scaffolding needs to be strong and steady, so if scaffold boards are bending or bowing, then it's probably overloaded and may be unsafe.
- Scaffolding needs to be level and stable with poles placed on base plates, mud sills or adequate firm foundation.
- All scaffolding sections must be pinned, with all cross braces in place before work is started.
- All scaffold work platforms must be fully decked. That means anywhere a worker is standing or doing any work on the scaffold, that area must be fully decked.
- You can't climb the cross braces; you've got to use some sort of ladder. Many scaffold systems have ladders built in, but if they don't, tie off a ladder to access your work area.
- Any scaffold above 10 feet high needs fall protection. Most companies use guardrails and mid-rails; but remember, all open spaces must be protected, even those where you load or unload materials.
- You can't stand on block or brick, or even a stepladder, while on a scaffold. You also cannot stand on a rolling scaffold unless the wheels are locked.
- Don't take chances working on scaffolds. Whether it's climbing the cross braces, ignoring the need for fall protection or letting your buddy roll you while you're standing on a rolling scaffold, these are chances that can get you hurt or worse.

FALL PROTECTION

- Fall protection is needed in most cases where a worker can fall six feet or more. Aerial lifts, ladders, scaffolding and steel erection all have separate fall protection rules.
- There are several types of fall protection, but three are most widely used.
- Guardrails and mid-rails are usually placed on an outer edge; these must be strong enough to keep you from falling.
- Personal fall protection, which includes a harness, lanyard and suitable tie-off point, is needed in areas where other fall protection can't be used.
- Wearing fall protection doesn't do you any good if you don't tie off. Tie-off points must be able to hold 5,000 pounds per employee, so always tie off to something strong (5,000 pounds is the weight of a small truck).
- Warning lines are used to keep workers a safe distance from fall hazards. These lines should be at least six feet away from the hazard; keep in mind warning lines are useless if a worker goes outside the line without tying off.
- In reality, fall protection is quite simple. The bottom line is that if you're working in an area where you can fall six feet or more, like near the edge of a building, you need some type of fall protection.
- When using fall protection, you've got to know when it is necessary, which type is best for your job and how to use it properly. Know how to wear your full-body harness and tie off every time you need to.
- Don't use the excuse that "there's nothing to tie off to." Figure it out before you start work because falls on construction sites kill more workers than any other type of accident.

- Do it right; do it safely; protect yourself from falls every time you need to.

ELECTRICAL SAFETY

- All jobsite electrical power needs to be grounded and protected with ground fault circuit interrupters (called GFCI's for short). An example would be any temporary electrical panels you use.
- Panels should have protective covers. Be careful because openings around the edges may expose you to energized electrical parts, which is especially dangerous if you're carrying tools or materials.
- If you see open spaces in a panel box, stay clear. Panels should have circuits in place or socket covers where a circuit is missing.
- Extension cords must be rated heavy duty and be in good condition. Taped or spliced cords are not in good condition and should be replaced.
- Extension cords also need a ground prong. A cord lacking a ground is one of the most common violations; if the cord you're about to use doesn't have one, don't use it.
- Cords on the jobsite need to be located where they won't get damaged. Don't stretch a cord across a site road unless it's protected.
- Be careful stretching cords around corners, through doorways or setting them down in water. Don't make your cord a trip hazard, especially on or near any stairs.
- Site electrical rooms should be kept locked with only electrical workers and supervisory employees allowed inside. Also, the doors should have warning labels.
- Most workers have no business being in an electrical room, so don't go in or use them for storage; that's an invitation for disaster.
- It's critical you keep at least a 10-foot clearance from power lines with any tools, equipment or materials you're using.
- Your goal should be to gain an appreciation for electrical power, but gain it the easy way—through your training; otherwise, you might not get a second chance.
- Do it right; do it safely; don't be shocked by the "silent killer."

GENERAL JOBSITE SAFETY

- Inspect your tools each time before use. If they're not in good condition, don't use them; either throw them out or tag them out of service until they can be fixed.
- Safety and housekeeping go hand in hand. Whether it's eliminating trip hazards or fire hazards, pounding down nails or just a way to stay organized, your clean job will not only be safer, but far more productive.
- Back injuries happen because many workers instinctively lift with their backs and not with their legs. After lifting this way hundreds or thousands of times, the back finally "gives way."
- Remember to lift properly each and every time you pick something up. Back injuries cause real pain and can change your life; lift with your legs, not with your back.
- If your job is to operate heavy equipment, you need to be trained and authorized by your company.
- Inspect your equipment before using it each day; that includes the tires, brakes and other mechanical items. Most heavy equipment also needs a fire extinguisher, working horn and back up alarm.
- Be careful climbing up and down your equipment. Accidents that occur while doing this are the most common suffered by equipment operators.
- If your equipment has a seatbelt, always use that seatbelt. That goes for company vehicles as well; construction workers spend a lot of time driving company trucks and many don't wear their seatbelts.
- The lack of seatbelt use is a big problem off the jobsite as well; wear your seatbelt whether you're on or off the job. Tell all your family members to wear their seatbelts too.

IMPORTANCE OF A GOOD SAFETY ATTITUDE

- The one thing that can help you work safely more than any other is your attitude. Despite the dangers and despite the injuries and deaths our industry has had, construction workers can work safely.
- Forget about the excuses like "I'm in a hurry" or "I've always done it that way before" or "Give me five minutes to get this done and then I'll work safe." Excuses will only get you hurt.
- Remember, working safely depends on your safety attitude and a positive attitude can save you from injury or worse. With that positive attitude and knowledge of the hazards around you, you can make the jobsite a safer place.