NC Industrial Commission

Safety Bulletin

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"A spill, a slip, a hospital trip!"

April – 2007

Greetings Friends in the Name of Safety:

Spring has sprung! As the weather turns warmer and we start those home projects, please don't forget to use your PPE. More injuries occur at home each year than in the workplace. Therefore, we should place safety importance at home as well as at work.

Please don't forget that our 77th Annual Statewide Safety Conference is fast approaching and registration and the preliminary programs are available on our **website**. Please make plans to join us May 15 – 18, 2007 at the Joseph Koury Convention Center in Greensboro, NC.

We are continuing our 30-Hour Accident Prevention Certificate Awareness Program (APCAP) this year. Please see the 2007 APCAP schedule in the UPCOMING EVENTS section of this Bulletin or call Ginny at 919-807-2603 for more information.

Again, we thank you for your support and we pledge to continue to serve your needs. We remain open to your suggestions to improve our programs and promise to continue to provide quality ACCIDENT PREVENTION training programs.

Preventing same level slips, trips, and falls

By Randy Cranfill, NCIC

Some things to look for include:

- Unstable, loose, uneven or worn floor surfaces;
- Obstacles blocking people's clear sight of walkways;
- People either not having or not wearing non-slip footwear;
- Floor surfaces which become slippery when wet;
- Low levels of light making it difficult to see;
- Slippery, wet, muddy or oily floor surfaces;
- Objects in the path of people.

Examples of what can be done to stop such occurrences from happening

• Floor surfaces are kept uncluttered;

• Floor surfaces are even, stable and always kept in good condition;

• Non-slip floor surfaces are installed and maintained;

• Replace or repair lighting;

• Messes on floors are immediately cleaned up and action taken to prevent any further spills;

• Ramps are made with a gentle slope and are fitted with handrails.

"Preventing slips, trips and falls can easily be done when everyone takes ownership."

Editors note: Randy Cranfill is the NCIC Accident Prevention Certificate Awareness Program/Accident Prevention in the Workplace Series coordinator. If you are interested in having one of our programs in your area, please give Randy a call at 919-218-2986 or email him at cranfilr@ind.commerce.state.nc.us

Make sure that ladder is right for the job

Ladders are very common equipment on the jobsite. Using a ladder safely appears to be common sense. It's easy to think that an accident won't happen.

Do you just assume that you know everything there is to know about using ladders safely? Remember, a competent person must train you in site-specific ladder use.

Here are some tips for selecting the right ladder for the job:

Portable ladder selection
An important part of ladder safety is selecting the right ladder for the job. Ladders should be used primarily for climbing and not for working off of. If you need to work at heights use a scaffold or a scissors-lift.

Choose the right ladder length for the job. When using a portable ladder make sure the side rails extend at least three feet above the top-landing surface. Also, make sure you use the right type of ladder.

There are four duty ratings for ladders:
- Light Duty-Type III – working load in pounds: 200
- Medium Duty-Type II –working load in pounds: 225
- Heavy Duty-Type I – working load in pounds: 250
- Extra Heavy Duty-Type IA – working load in pounds: 300
- Special Duty-Type IAA- working load in pounds: 375

The Duty Rating is the maximum safe load capacity of the ladder. Your weight, including clothing, tools, and material must not exceed the duty rating.

Ladders can be made of wood, aluminum, or fiberglass. Each material has characteristics that make it better for certain applications. Select a ladder that is suited to the user's work environment or work application. As you can see, selecting the right ladder for the job is an important part of ladder safety.

Wood:
- Economically priced
- Electrically non-conductive when clean and dry
- Heavy
- Can be damaged by corrosive elements, by dropping the ladder, or having it tip over
- Wood slivers can be a problem

Aluminum:
- Good strength
- Lightweight
- Resistant to corrosion
- Weight can cause stability problems during use
- Conducts electricity

Fiberglass:
- Electrically non-conductive
- Good strength
- More expensive than wood or aluminum ladders
- Usually heavier than aluminum ladders

Fall Protection Safety: Quick tips

By Tania Whitfield, NCIC

It may seem that a job can be performed more efficiently without spending the time to protect against falls. However, falls remain to be one of the leading causes of injury in the workplace. Workers have fallen off edges of every description, especially floors and roofs, and through openings in floors, roofs, and walls. Fall protection is required whenever a worker faces serious risk of injury, including on structures where a worker could fall more than 6 feet, on work stands/ladders, or on a sloped roof.

To prevent accidental falls at worksites, training on Fall Protection Safety is beneficial. Training is a tool for fighting towards zero incidents, low worker's compensation premiums. This is where the Safety Section of the NCIC comes in. This is what this section provides; accident prevention training such as Fall Protection Safety. Fall Protection is just one of many. Your training needs could be easily met by using the many services provided to you by your Safety Section of the NCIC. Let us work for you!

Editors note: Tania Whitfield is your Central Piedmont Safety Representative. Please give her a call at 919-218-9049 ore email her at whitfielt@ind.commerce.state.nc.us

Give us a call to assist you with your training needs!

Insight...

- **Movie Trivia Question*: Kim Novak was not Hitchcock's first choice to play the complex role of Madeleine/Judy in the highly acclaimed film Vertigo. Novak was selected after another actress was forced to resign the role because of her pregnancy. Who was this actress?***

  Possible Answers a. Doris Day; b. Anne Baxter; c. Vera Miles; d. Ava Gardner
- ***Answer: see last page***

- **The average office worker uses about 10,000 sheets of paper each year. Annual copy paper use in the U.S. consumes enough wood to build nearly 1 million average homes, and release pollution equal to over 2 million cars. So much for the much-ballyhooed "paperless office".**

- **You have probably heard someone say, "He's not the man he used to be". This is literally true! Except for the minerals in the enamel of teeth, every molecule in the human body is, on the average, replaced once every 7 years.**

- **Brain injuries -- accidental (mainly from falls) and inflicted (i.e., from abuse) -- hospitalize or kill an estimated 150,000 children annually in the U.S. Traumatic brain injury is the most common cause of death in childhood, and child abuse is believed to be responsible for at least half of infant brain injuries.**

Safety Rules

By Mike Bingham

Here are some thoughts from some pretty famous and successful people regarding rules:

…there are no rules here - we're trying to accomplish something.

- Thomas Edison

Nordstrom's Rules for Employees: Rule # 1: Use your good judgment in all situations There are no additional rules.

-Unknown Source

Any fool can make a rule, and every fool will mind it.

- Henry David Thoreau

"You have to learn the rules of the game. And then you have to play better than anyone else."

- Dianne Feinstein

What happens in your company if a worker breaks a safety rule? Does your company have a system in place for managing safety-related behaviors?

Having clearly written, site-relevant, well-communicated safety rules that are understood by all stakeholders, are fairly and consistently enforced, with the intent of guiding and protecting the affected workers is a critical piece of the safety management process.

As managers we don't have mistreat or intimidate our rule breakers to guide them. Nor do we have to tolerate their undesirable actions. We do, however, have the duty of providing a safe and

healthful workplace for them. Having solid rules is a part of this duty. The rules define the expectations and provide something to measure against. They help us by providing an equal starting point for all persons. Workers who know and understand the rules will be able to recognize that their choices will affect their safety. Managers will have a tool to help reward or redirect workers' actions.

The rules give us things we can model in an effort to lead by example. If management obeys all the rules, all of the time, a culture can grow from that. If management establishes accountability for obeying or disobeying rules, it strengthens the culture.

With the growing popularity of behavior-based safety programs, it is vital that companies realize that behaviors must be managed. Desirable behaviors have to be rewarded, and undesirable behaviors must draw appropriate consequences. If there are no consequences, there will be no reason to act in a certain way. Good behaviors ignored could cause people to revert to the "easiest" way of doing things, while bad behaviors ignored could continue or even get worse.

If football teams were to suddenly start playing by the first three quotes at the beginning of this article, things would get pretty interesting. Confusing, chaotic, unmanageable maybe, but interesting.

But what if we learn the rules of the game, then play better than anybody else? What if we consider the rules as minimums and then build on them to exceed ordinary efforts?

Check out Worker's Comp rule 97-12. If you have written safety rules that are communicated to all employees and are enforced, you can send your safety rules (not the entire program) to the NCIC, and if they are approved, you can ask for a 10% reduction in payout on an injury if the employee was hurt due to breaking your rules! Call 919-807-2603 for more info.

Editor's Note: Mike Bingham is the Western Area Safety Representative for the North Carolina Industrial Commission. He has 27 years experience in industry, from entry-level assembly work through various technical and managerial positions. He says he is fortunate that his job is also his hobby. Mike is one of the 10 members of the North Carolina Industrial Commission's Safety Department who are out there Working for You to make our workplaces safer and better for each and every worker by reducing injuries to employees and saving money for employers through education and training.

You can contact Mike at: binghamm@ind.commerce.state.nc.us or call: 919.218.9045

Oh, my aching neck…

The neck is a pretty common place to experience pain. That's because your neck is the most mobile part of the spine – so injuries and painful conditions are more likely to occur there. If you are suffering from neck pain, you should see a health professional about it. To prevent neck pain and injury, follow these tips:

- Maintain proper posture. Use a chair that is appropriate, stable and the right height. Use a table that is also the right height to avoid neck strain. Change your position periodically, so that exhaustion and pain will not occur.
- Avoid twisting your neck suddenly. When you are standing, maintain a relaxed neck, with your head upright and your chin retracted. You'll also want to get the right size pillow. A pillow should support your neck in a balanced position.

- Exercise your neck regularly to maintain and improve flexibility. Take a break from whatever you do during the day, about every half-hour. Stretch your neck in different directions by looking up, down, to the right and to the left. Another good way to exercise this area is to raise and squeeze your shoulders together and then relax. Repeat this a few times.

From the Desk of Dennis Parnell, Director Safety Education…

AED's are a life saver

Automated external defibrillators, or AED's, are a common site in many businesses and public buildings. They have saved countless lives, and are easy to use. But many people still don't understand why they are necessary or what they do.

What is an AED?

You've seen full-sized defibrillators on television. When the doctor shouts "Clear" and shocks the victim, they are using a defibrillator. An AED works the same—it corrects sudden cardiac arrest (SCA) by shocking the heart back into a normal rhythm to restore a pulse.

Manufacturers have developed lighter, smaller, battery-operated, computer-controlled models, which are easily portable and can be used by nearly anyone.

What is SCA?

The heart normally has a rhythmic beat which causes the blood to move in a consistent, predictable way. When someone has an SCA event, the heart begins to pump irregularly and ineffectively. This is called ventricular fibrillation (VF). VF is not to be confused with the heart attack where blood flow to the heart muscle is blocked. With VF, the blood stops circulating adequately, breathing stops, and eventually the victim will die.

Another SCA event is ventricular tachycardia (VT), when the heart muscles start to "quiver" instead of working together to push blood through the system.

CPR alone does not replace defibrillation in an SCA incident. CPR can only assist the victim for a short time until medical help arrives. However, medical assistance can be many minutes away.

SCA episodes can quickly lead to death. And the longer care is delayed the less chance that a victim will recover. Fortunately, AED's can be used to fix them if they occur.

How do AED's work?

AED's are designed to be simple and easy to use by directing the operator through the necessary steps for use.

A set of pads are applied to a victim's chest and the AED determines if a shock should be administered. When the AED senses a condition that can be corrected with a shock, the unit tells the operator to deliver a shock. The AED continues to monitor the victim, and will prompt the operator through any additional steps, which may include another shock or the use of CPR.

The AED will not allow a shock to be given if it does not detect a condition that can be corrected with one. It cannot be used in an unsafe manner.

Nearly 350,000 people die each year from sudden cardiac arrest. Currently, the chances of surviving SCA without the aid of an AED are one in twenty. However, immediate use of an AED dramatically increases the chances of survival.

Please give us a call for your CPR training. Now you know. Dennis ☺

CPR GUIDELINES HAVE CHANGED!!!

By Eric Johnson, NCIC

Yes you've probably already heard, but did you know our course instruction is FREE, all you pay for is the book, the National Safety Council's Standard First Aid, CPR, and AED, a little more about that later.

Just Imagine, someone at work or at home suffers cardiac arrest and falls to the floor! Do you know what to do? Call 911 and wait for them to respond and start treatment? Will they be there in 4 to 5 minutes? Maybe, maybe not! But guess what, if the victim is not breathing, they are dying, and dying fast!

So is learning CPR important? With statistics showing over 350,000 Americans die each year from cardiac arrest and 75 to 80 percent are out of hospital and at home with 9 out of 10 dying before they get to the hospital, yes I believe it is important. The life you help save may be a loved one. **REMEMBER: "IT'S BETTER TO KNOW IT AND NEVER NEED IT, THAN TO NEED IT AND NOT KNOW IT"**

At the 2005 Consensus Conference researchers debated all aspects of detection and treatment of cardiac arrest and in January of 2006 the American Heart Association released the new CPR guidelines. Just to mention a few major changes for Lay Rescuer CPR are compressions to breaths, now 30:2 for adult, child, and infant. Also no pulse check, breaths and compressions always together, and head tilt chin lift only taught to open airway, no jaw thrust for lay rescuer.

In our FA/CPR/AED course we cover the following:
CPR (Cardio Pulmonary Resuscitation)
AED (Automated External Defibrillator)
Acting in an emergency
Checking the Victim
Recovery Position
Choking (Responsive and Unresponsive)

Heart Attack
Disease Transmission
Bleeding and Wound Care
Shock
Burns
Serious Injuries
Bone, Joint, and Muscle Injuries
Sudden Illness
Poisoning
Bites and Stings
Cold and Heat Related Emergencies
Rescuing and Moving Victims

As we mentioned earlier, our course instruction is free, all you pay for is the book. The National Safety Council's FirstAid/CPR/AED book is $18.00 per student, which includes a DVD, Quick Guide Book, manikin face shield for practice and practical, other supplies used in class, and shipping & handling. If all you need at this time is CPR/AED Refresher the book is $13.50. Also in following the American Heart Association Guidelines the NSC CPR/AED Certification is good for 2 years and First Aid for 3 years. Please call the Safety Representative is your area to schedule a class today!

Editors note: Eric Johnson is the Southern Piedmont area Safety Representative for the NCIC. He brings a wealth of experience to the table. Eric is also the coordinator for Water and Wastewater seminar training. Please give Eric a call at 919-218-3567 or email him at johnsone@ind.commerce.state.nc.us

What makes old electronics hazardous?

As we become more dependent on electronic products, the stockpile of used, obsolete products grows. This is a concern because electronic equipment contains metals and other materials that can be hazardous to human health and the environment if they are not properly managed.

What makes electronics hazardous? Where is it found? How is it dangerous?

Cadmium
Cadmium is found in chip resistors, infrared detectors, and semiconductors.

Cadmium can accumulate in and negatively impact the kidneys. The principal exposure pathway is through respiration and through our food.

Lead

Computer monitors and older TV picture tubes contain an average of four pounds of lead. Lead is also found in lead soldering of printed circuit boards. Consumer electronics may be responsible for 40 percent of the lead found in landfills.

Lead can cause damage to the central and peripheral nervous systems, blood systems, and kidneys in humans. Lead has also been shown to have negative effects on the development of children's brains. The principal pathway of concern is lead leaching from landfills and contaminating drinking water supplies.

Mercury
Mercury is found in thermostats, position sensors, relays and switches (e.g., on printed circuit boards), discharge lamps, and batteries. It is also used in medical equipment, data transmission, telecommunications, and mobile phones.

When mercury makes its way into waterways, it is transformed into methylated mercury in the sediments. Methylated mercury accumulates in living organisms and travels up the food chain. Methylated mercury can cause brain damage. The principal exposure pathway is through our food.

Chromium
In electronics, hexavalent chromium is used as an inexpensive corrosion inhibitor on untreated and galvanized steel plates. It is also used as a primer for paint and coating adhesion.

Chromium VI can damage DNA and has been linked to asthmatic bronchitis. The major pathways are through landfill leachate or from fly ash generated when materials containing Chromium VI are incinerated.

Flame-retardants
Brominated flame-retardants are found on printed circuit boards, components such as plastic covers and cables, and plastic covers of televisions.

Research has shown that one type of flame retardant might act as an endocrine disrupter. Another type may increase cancer risk to the digestive and lymph systems. Once released into the environment through landfill leachate and incineration, they concentrate in the food chain.

What can you do?
When electronics are not disposed of or recycled properly, these toxic materials can present problems. Extend the life of your electronics or donate your most up-to-date and working electronics to save money and save valuable resources.

When you recycle outdated electronics, you promote the safe management of hazardous components and support the recovery and reuse of valuable materials.

The *NC Industrial Commission Safety Education Section* stands ready to assist you with your Safety training needs. We offer a variety of courses, designed to suit your needs. Please give one of our Industrial Safety Representatives a call…

- **Mike Bingham** – binghamm@ind.commerce.state.nc.us – **Western Carolina Area – 919-218-9045**

- Randy Cranfill – cranfilr@ind.commerce.state.nc.us - APCAP Coordinator – 919-218-2986
- Markus Elliott - elliottm@ind.commerce.state.nc.us – Southeastern Area – 919-810-5788
- Mel Harmon - harmonm@ind.commerce.state.nc.us - Mid-State Area and Defensive Driving Instructor– 919-218-3374
- Eric Johnson – johnsone@ind.commerce.state.nc.us – Southern Piedmont Area 919-218-3567
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- Dennis Parnell – parnelld@ind.commerce.state.nc.us – Director Safety Education – 919-218-3000

We Are Working For You!

NC INDUSTRIAL COMMISSION

[CLIP AND SAVE]

Upcoming Events…

- April 19, 2007 – Central Piedmont Safety Council Regional Workshop – Surry Community College, Dobson, NC
- April 19, 2007 – Blue Ridge Safety Council Quarterly Meeting – McDowell Technical Community College, Marion, NC, 6pm
- May 22, 2007 – Northeastern Safety Council Quarterly Meeting
- May 23, 2007 – Southern Piedmont Safety Council Workshop – Rowan-Cabarrus Community College – Room 251 - Time:10:00 a.m. – 3:00 p.m. – Topic 70E Arc Flash
- May 15 – 18, 2007 – NC Statewide Safety Conference – Koury Convention Center Greensboro, NC
- 30-Hour Accident Prevention Certificate Awareness Program Dates:
- June 11-15 - Salisbury, NC
- August 6-10 - Cherokee, NC
- Sept 10-14 - Atlantic Beach, NC
- Oct 8-12 - Winston Salem, NC

- Nov 5-9, Sanford, NC

- Answer: **C. Vera Miles**