



Accelerator ES&H Quarterly Newsletter

Inaugural Issue
Winter Edition

Accelerator ES&H Quarterly
Newsletter Date

WINTER SAFETY Seasonal Sense

Another year is coming to an end, and the holidays are just around the corner. While this is a time of good cheer and vacations away from work, the winter season also presents us with many new hazards that we need to be aware of.

The colder weather brings ice and snow that need to be cleared from driveways and walkways, precautions need to be taken with heaters that are put into use at this time of year, and driving often can turn into a challenge.

The following advice is meant to be used in order to ensure a safe work environment; however, they are not to be forgotten at the end of the work day. These are tips that you should take home with you in order to make your (and your family's) winter season that much safer.

The simple task of being outside in winter conditions can strain your heart and take its

toll on your body. Frostbite and hypothermia are real dangers to people with exposed skin or inadequate clothing. When preparing to go outdoors in the wintertime, it is best to:

- Cover as much exposed skin as possible.
- Cover your head. You lose most of your body heat through your head so wear a hat, preferably one that covers your ears
- Wear gloves or mittens to protect your hands. Mittens will actually keep your hands warmer than gloves.
- Dress in multiple, loose-fitting layers, rather than one or two heavier layers of clothing. This will enable you to better regulate your body temperature (as your body temperature increases, you can remove layers of clothing to compensate).

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Walkers can help out by observing conditions, taking smaller flat-footed steps, wearing appropriate footwear, and holding onto railings or other immobile objects.



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The Division Head's Corner

Safety & Quality

It should come as no surprise that safety and quality go hand in hand. When we perform a task with the goal of doing the best job possible, we proceed methodically carefully thinking through each step before we take it. As a result, there are few surprises along the way, and we are more likely to achieve the outcome we want. More importantly,

we are more likely to complete the task safely. When we get in a hurry because we want to get an unpleasant or uninteresting task out of the way, we are more likely to be surprised along the way. Quality and safety are not surprises. We have to strive for them. We need both to achieve the goals of our Division.

-Roger Dixon

Did You Know...

- Current weather conditions for the Fermilab site are available at <http://www.esh.fnal.gov/pls/default/Weather.html>
- The coldest temperature recorded on site (since 1994) was -22 F (-30 C), on January 5, 1999.
- Chicago's all-time record low temperature of -27 F occurred on January 20, 1985. (www.chipublib.org)



Safe @ Home

News, Information, and Suggestions
To Improve Health and Safety
Off-the-Job and On-the-Road



HOLIDAY SAFETY – *Food, Fires, & Falls*

Food safety at home

The key to food safety at home is to prevent bacteria from growing. This can be accomplished through basic sanitation practices and controlling temperatures. Cross contamination can occur when bacteria is transferred during food preparation. This happens, for example, when people do not wash their hands after handling raw meat. Bacterial growth can also occur if food is improperly cooled and stored, or if left out too long after serving.

The following practices are effective at preventing bacterial growth and cross contamination:

- Wash all fruits and vegetables before cooking or eating. Dirt, insects, pesticides and other people handling the unwrapped produce may cause contamination and bacterial growth.
- NEVER thaw frozen food at room temperature. It is best to let foods thaw overnight in the refrigerator in a covered container, under cold running water, or in the microwave.
- Always place cooked food above raw items in your refrigerator. Be sure everything is covered when stacking them to ensure that raw food won't fall onto the cooked items below.
- Use hard plastic cutting surfaces for raw meat because they can be easily washed and sanitized after each use. It is a good practice to have a separate cutting surface for raw meat, and one for all other ingredients.
- Use separate plates/utensils for the transport of raw food to the cooking surface and bringing the cooked product back to the prep area.
- Before preparing food on any surface, make sure that the

surface is clean. Cleaning can be done with commercially available cleaners, hot/soapy water, or a chlorine bleach solution (1 cap of bleach added to 1 gallon of cold water).

- Always sanitize openers after each use.
- A meat thermometer is a great kitchen tool and takes the guess work out of determine the 'doneness' of meat. The USDA has published guidelines for minimum recommended internal temperatures for different meats. The food temperature guidelines are available at: http://www.fsis.usda.gov/PDF/IsItDoneYet_poster.pdf
- Cold food should be served at a temperature of 40 degrees F or less.
- Always wash your hands before and after preparing food.

What to do with leftovers?

- Leftover food items should be chilled as soon as possible. It is best to break down large items into smaller portions to promote faster chilling.
- Refrigerate leftovers immediately. They should be taken as quickly as possible from proper serving temperature (140-180 degrees F) to the proper refrigeration temperature (40 degrees F).
- When re-heating leftover food, bring it to a temperature of at least 165 degrees F to eliminate any bacterial growth. When using a microwave for re-heating, place food in a covered dish. This helps retain the heat to provide even temperature distribution. Use a meat thermometer to check internal temperatures.

Are you burning candles safely?

During the holidays, candles help set the perfect atmosphere, however, if not used properly, they can present a dangerous fire hazard.

There were approximately 15,000 candle fires in 1999 that resulted in 102 deaths, 1,473 injuries and \$278 million in property damage, according to the National Fire Protection Association's (NFPA) most recent records. The leading cause cited for home candle fires (37%) is unattended, abandoned, or inadequately controlled candles. By following a few simple safety procedures, you can limit the risk of candle fires in your home:

- Never leave a lit candle unattended. Extinguish all candles when leaving a room or going to sleep.
- Use sturdy candleholders that are made from materials that can't burn and are large enough to collect dripping wax.
- Place candles on an uncluttered, heat-resistant surface and keep them out of the reach of children and pets.
- Keep candle away from flammable liquids and away from items that can catch on fire (i.e. clothing, books, curtains, drapes, lampshades, bedding, etc...)
- Burn candles in a well ventilated room away from drafts and vents
- Keep candlewicks trimmed to 1/4" prior to use and extinguish taper and pillar candles when they get to within 2" of the holder or decorative materials. Votives and containers should be extinguished before the last 1/2" of wax starts to melt.

Ladder Safety

Decorating our homes is a traditional part of the holiday season and can require the use of ladders in order to install the decorations just so. The following are a few tips that should be followed when using ladders:

- When choosing a ladder, do-it-yourselfers must consider the project and the materials. If they plan to use heavy materials, they will need a different class of ladder. Industrial ladders are for 250 pounds; heavy-duty industrial, 375 pounds; commercial 225 pounds; and household, 200 pounds
- The ladder you choose should have a seal of approval on it.
- When using a ladder, stand it on firm and even ground.
- Keep your hips (or your belt buckle) inside the ladder's rails and keep 3 points of contact (2 hands and 1 foot, 2 feet and 1 hand) on the ladder at all times.
- Adjust the bottom of an extension ladder 1 foot away from the wall for every 4 feet the ladder is raised.
- Carry tools on a belt or use a rope to lower or raise them. When carrying a ladder, carry it in the middle and keep it parallel to the ground.
- Don't climb higher than the third rung from the top on extension ladders or the second rung from the top on stepladders.





Winter Safety: Seasonal Sense (continued from Page 1)

- Wear insulated, waterproof boots to keep your feet warm and dry.
- Wear a scarf to cover your mouth and protect your lungs from the extreme cold.

Finally, it is extremely important to change out of wet clothing into dry as soon as possible.

Winter weather can make the shortest, most routine trip into an adventure. When driving, either during or off work, there are several things you can do ahead of time to increase your odds of a safe and successful trip. You should:

- Have your vehicle checked out by a qualified mechanic **BEFORE** the weather gets too bad.
- Always keep at least a half tank of gas in your vehicle to prevent the gas line from freezing.
- Check your vehicle's windshield washer fluid level frequently, and carry an extra bottle in your trunk just in case you run out on the road.

- Always make sure the head lights, brake lights, and exhaust of your vehicle are free of snow or ice build-up before beginning your trip.
- Keep an emergency kit in your vehicle including a blanket, additional clothing, food/candy bars, water, first-aid kit, a flashlight, and a shovel.
- **NEVER** warm up your car while it is parked inside your garage. The car should be backed out of the garage in order to avoid the concentration of carbon monoxide from the exhaust.
- Upon arriving at your destination, exit the vehicle carefully keeping one hand on the door frame to help with stability in case the ground/pavement is icy.
- Anticipate slick surfaces when walking to or from your vehicle, and walk flat-footed taking shorter steps than usual.

Finally, Fermilab, being the large campus that it is and having hundreds of doors and miles of sidewalk, is bound to have some areas blocked by snow that Roads & Grounds

have not been able to clear before the start of normal business hours after a substantial snowfall. It is asked of all employees, who are physically able, to:

- Ensure no exit door is blocked/unable to be opened due to accumulation of snow or icing issues.
- Help clear sidewalks/doorways of large accumulations of snow.
- Help keep steps and walkways ice-free by spreading salt or de-icing compound.
- Report any hazardous situation that cannot be easily corrected to your division safety office or Roads & Grounds for follow-up.

By following these and other safety suggestions, you can greatly reduce your risk of accident/injury during winter-time and be free to really enjoy the Happy Holidays!!



Winter weather can make the shortest, most routine trip into an adventure. (11/29/06, (seattletimes.nwsources.com))



And if you're going to ride a bicycle in the snow, well... at least wear a helmet.

Consumer Product Safety Commission Recalls - *Good things gone bad*

Every month, the U.S. Consumer Product Safety Commission (CPSC) issues around two dozen recall notices for various products. The products recalled span a wide range of items, from chain saws and sprinkler heads to children's jewelry and toys (especially important at this time of year). We may hear about these recalls in stores or

directly from a manufacturer, but often we don't hear a thing.

Fortunately, the CPSC has addressed this problem and provided a way for all of us to get timely notification of recalls - by e-mail.

Go to the CPSC website (<http://www.cpsc.gov/index.html>) and sign up to receive

recall notices as they are issued. The notices tell what products are involved, what the hazards are, where the items were sold, and what to do if you have one of the recalled items. The service is free and all it takes to subscribe is an e-mail address.

Also check out their [List of Top Holiday Safety Tips](#).

Recent Recalls from the CPSC Website

- [Children's Necklaces](#)
- [Chain Saws](#)
- [Magnetic Play Sets](#)
- [Gourd Candles](#)
- [Desk Lamps](#)
- [Counterfeit Circuit Breakers](#)
- [Toy Play Sets](#)
- [Puzzle Tables](#)



The ES&H Help Desk - Another Way to Report ES&H Concerns

(Adapted from [Fermilab Today](#), Safety Tip of the Week, July 11, 2005)

Fermilab's management has set high standards for ES&H performance. One key to success is the prompt resolution of ES&H concerns that are identified by the people who work here. In most cases, such matters can be satisfactorily addressed through interactions at the work-group level - co-workers and supervisors.

Sometimes, though, the involvement of ES&H professionals, or people further up the management chain, may be needed to get issues resolved. Less often, these standard approaches can be ineffective or unusable. For example, the

process may simply fail to address the concern, or the identity of the organization that owns the concern may be unclear, or the observer may fear retribution for reporting the concern. Fortunately, there is an electronic reporting system that helps avoid these problems.

Go to the [ES&H Section's website](#) and click on the **Quick Link** labeled **Report ES&H Concern**. From there you will be given a choice of **Safety Concern or Suggestion Box**.

Click on the Safety Concern link if you are willing to identify

yourself. This is the preferred approach. If your identity is known, it makes it easier to understand the issue and make sure the results are reported back to you. As a member of AD, by default the message is routed to **John Anderson**, the **AD Senior Safety Officer**, though you can select another SSO if that seems appropriate.

Alternatively, you can click on the Suggestion Box link if you wish to remain anonymous. Fermilab's management does not want any ES&H issue to go unaddressed for fear of retribution or embarrassment

Links to Some ES&H Related Websites

- [Accelerator Div ES&H Dept](#)
- [Fermilab ES&H Section](#)
- [OSHA](#)
- [USEPA](#)
- [Illinois EPA](#)
- [National Safety Council](#)



Lessons Learned - The Voice of Experience

"Lessons Learned" (or "Lessons Learned Systems") is the rather awkward phrase that is now generally used by the government and other large institutions around the country as the name for knowledge management programs that support "the capture, validation, storage, distribution, and reuse of organizational lessons". The aim is to get large groups of people to do what is commonly known as "Learn from your mistakes (and your successes)". To say

it another way, Lessons Learned programs try to get people in an organization to hear the voice of their collective experience.

Though the concept of learning from experience is as old as humankind, putting it into practice isn't so simple when you are trying to get hundreds or thousands of individuals who are involved in carrying out complex tasks to learn from the experiences of the other hundreds or thousands

of individuals doing related work. But Lessons Learned programs are considered a key component in an organizational culture committed to knowledge management and continuous improvement. The goal is to promote recurrence of successful outcomes and reduce the recurrence of negative outcomes.

ES&H-related Lessons Learned reports generated at Fermilab get posted at the following web location: Fermilab Home

> ES&H Home > ES&H Tools > Guidance & Information > [Lessons Learned](#). This web page allows you to sign up to receive automatic notices of newly posted lessons.

Besides reviewing lessons learned, and implementing those that make sense for your organization, please stay alert for candidate lessons - near-miss incidents or clever safety improvements - to pass on to supervisory and/or ES&H personnel.

Wait... Don't throw THAT in the dumpster

Though all of us (well, at least some of us) like to keep our homes and garages clean and organized, sometimes people forget that the nice, barely full dumpster sitting outside some service building here on site is not there for us to use to get rid of all the stuff we cleaned out from our homes that our local garbage collector won't pick up. And when we clean

out our work areas, some of us forget that not everything can go into the dumpster. When people forget these rules and prohibited materials are thrown into a dumpster, those materials have to be removed before the dumpster can be emptied by the waste hauler. And that means someone (preferably the person who put the materials in there

to begin with) gets to go "dumpster diving". Since this is an unpleasant experience all the way around, we wanted to remind everyone that there is a list of materials prohibited from going into dumpsters and you can find it [here](#). If you have questions about waste disposal, please call **Sylvia Wilson**, the **AD Waste Coordinator**, at x4489.



This was the scene outside AP50 on September 15th, as prohibited items were hauled out for disposal.



New Injury Rate Goals for Fiscal Year 2007

For each new fiscal year (which runs from October through September), Fermilab and the Dept. of Energy establish new performance goals which cover administrative functions of the lab, accelerator operations, facility maintenance, and safety and health, to mention a few of the major categories. Two of the goals in the safety and health category concern what are known as the TRC Rate and the DART Case Rate.

TRC stands for Total Recordable Cases. The TRC Rate is the number of recordable cases multiplied by 200,000 hours and divided by the number of hours worked in the organization. The DART Rate is the number of cases involving Days Away from work, Restricted days or Transfer to

an alternate job multiplied by 200,000 hours and divided by the number of hours worked in the organization. Sometimes the DART Rate is referred to as the Lost Workday Case Rate. For those of you who wonder about such things, the 200,000 hours is used to normalize the case rate to a standard workplace population of 100 people working 2,000 hours per year.

There are several pages of rules associated with what makes a case "Recordable" under the OSHA rules that DOE and the Lab use to classify injuries. For practical purposes, one can think of recordable cases as those injuries that involve medical treatment beyond first aid, call for the use of prescription medication,

and/or have other serious consequences such as the need to restrict the injured individual's job duties.

The goals for Fiscal Year 2007 are:

TRC Rate Goal: ≤ 0.65

DART Rate Goal: ≤ 0.25

What does this mean in terms of actual number of injuries at the Lab? In Fiscal Year 2006 that ended on September 30, 2006, there were a total of 27 recordable cases for the entire Lab, which translated into a TRC Rate of 1.57. The number of DART cases in FY2006 was 7, which represents a DART Rate of 0.38.

The focus on numbers can be misleading, however, since

injuries happen one incident at a time. Our responsibility as employees is not to worry about the numbers, but to pay attention to the work at hand to make sure we are performing that work in a safe manner. And to pay attention as we plan upcoming jobs to make sure every effort is taken to understand - and eliminate or mitigate - hazards associated with the work, provide for proper personal protective equipment, obtain needed training, seek out advice to address unusual conditions, and follow the appropriate procedures.

Above all, Lab management wants each of us to go home each day as healthy as when we started our shift.

Carbon Monoxide Detectors: New Illinois Law Goes into Effect on **New Year's Day** (From Fermilab Today, Safety Tip of the Week, 12/18/2006)

Illinois has a new CO detector law that goes into effect on January 1, 2007. All buildings that use fossil fuel and have sleeping rooms or an attached garage must have an approved, operating CO detector installed within 15 feet of any sleeping area.

CO is produced by the incomplete combustion of fossil fuels such as natural gas, gasoline or wood. Typical sources include heating equipment, cooking apparatus and internal combustion engines. CO is odorless,

tasteless and invisible. Symptoms increase with concentration and time. Overexposure is often mistaken as seasonal illness since symptoms include dizziness, nausea, headache, coughing, irregular heartbeat, pale skin, and red lips and ear tips. According to the National Safety Council, 200-300 people die each year in the United States from CO poisoning, while thousands more are sickened. Many victims are overcome in their sleep.

The Illinois State Fire Marshal plans to enforce the new law through anecdotal observations. If a local fire department is called to a home, firefighters will check to see if there are working CO detectors. If not, the homeowner will be given a warning. Firefighters will come back later and issue a citation if the owner still hasn't complied. Violators are subject to a Class B misdemeanor, punishable by up to six months in jail and a \$1,500 fine.



CO Monitors range in price from about \$20 up to \$60.



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