



Guardian

*Environmental Health
Safety*

Florida State University

Fall 2010

Before You Start, Be Safety Smart

A Newsletter of the
FSU

EHS

Department

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GUARDIAN, is published periodically by The Florida State University Department of Environmental Health and Safety

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The *GUARDIAN* is available in alternative format upon request and on the web at
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Golf Cart Use Reminder

In accordance with University procedures (OP-G-10.2.1, Golf Cart, Utility Vehicle and All-Terrain Vehicle Procedure) there are very specific requirements for the use of non-licensed vehicles on and around campus. This category of vehicles includes golf carts, gators and mules. The following list contains some highlights of the procedure:

- Only licensed drivers shall operate these vehicles
- The vehicles are only to be used for completion of work assignments
- Applicable pedestrian and motor vehicle regulations shall be followed
- Use only on and around campus in the *designated operational zone*

Typically for daylight use only
As with any vehicle the following safety guidance should also be followed:

- Vehicles should be inspected prior to each use
- Only the designated number of personnel as indicated by number of seats or manufacturer name plate shall be in the vehicle

It is very important that you take the time to refresh your understanding of the rules associated with the use of these types of vehicles. Fall semester brings with it increased campus congestion. Therefore, remember when using carts on sidewalks, crosswalks and intersections cart operators are required to yield to pedestrians. Pedestrians always have the right-of-way.



Environmental Protection

A Brief Review

Strong environmental laws and regulations specifically aimed at protecting the environment from the negative impacts of our industrial and agricultural activities were implemented in the United States before most of the students in our current campus community were born. Many of us can recall these times well; it was not that long ago.

The Clean Air Act became federal law in 1970 and the Environmental Protection Agency was created soon after, in 1971. This important law was followed by a myriad of related laws, which have been issued and amended over the past 40 years, all essentially intended to safeguard our natural resources by controlling sources of pollution. This flood of new legislation was a distinct departure from previous efforts when dozens of different agencies were tasked with separate responsibilities and each was given authority over just a few specific areas. Coordination among these agencies was difficult to achieve and no one agency could affect much of a change in overall environmental practices or conditions.

This transformation toward a more vigorous environmental stewardship was not instantaneous nor the actions of just a few groups but rather from an increased societal awareness bolstered by several well publicized and notable occurrences and blatant conditions. You may recall some of these from the 1960's and early 1970's: the burning of the Cuyahoga River in Ohio; the release of "Silent Spring" by Rachel Carson which highlighted the deleterious effects of chemicals widely used in the environment; the occurrence of deformities and deaths in several thousand Japanese due to consumption of methyl mercury present in

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Mitigation: Investing Today to Prevent Disaster Damage Tomorrow

There is an aspect to emergency preparedness that is often overlooked by the general public. This aspect is called “mitigation.” The concept is that we invest dollars today to prevent damages from a future disaster. Common examples include the construction of flood walls and levees. Building codes can be a form of mitigation, such as the requirement to build a coastal home upon stilts, or strapping down your roof. While clearly these tasks cost additional dollars today, the goal is to prevent losses tomorrow.

Florida State University, through a combination of state, federal, and university minor project dollars, has invested over \$1.5 million this year to make the university more resistant to a major hurricane. Permanent in-place hurricane shutters have recently been installed on the HCB Classroom Building (see below) and installation is in progress on the Student Services Building. The windows



on Tanner Hall are going to be replaced with impact-resistant glass. The goal is for these buildings to be strong enough to resist a major hurricane, so that they may provide safe shelter for university emergency personnel during the storm. It will also ensure that the building remains relatively unscathed and can return to service sooner than if it is damaged.

Future mitigation projects may include the installation of flood detectors so that the university may warn the campus community faster of rising waters on campus. The new Wellness Center will incorporate impact-resistant glass in its design. Hurricane shutters are also being considered for the Dunlap Student Success Center, Global and Multicultural Center, and Student Life Buildings. The goal is to develop an “emergency service core” in the center of campus to consolidate to during a major event.

Is Your AED Up to Date?

If you or your department have a Cardiac Science automated external defibrillator (AED) you may have been notified that certain AED manufactured between August 2003 and August 2009 may experience a rare product issue: resistors may fail and not be detected by the AEDs’ periodic self-tests. If the issue were to occur, the AED may not be able to deliver therapy during a rescue attempt and may affect resuscitation of the patient. Cardiac Science has issued a mandatory software update for all affected models. This update enhances the AED’s capability to detect the resistor issue during normal self-test procedures. Visit www.cardiacscience.com/AED175 to download and install this mandatory update. You may also contact Cardiac Science at 877-901-1788 or submit a request at the Cardiac Science web site to have a CD and written instructions mailed to you.



If you have questions regarding this notice or for additional information, visit the Cardiac Science website at www.cardiacscience.com/AED175 or by email at AED175@cardiacscience.com.

A Cautionary Note for Everyone

Do you ever mail, ship or transport Hazardous Materials or Dangerous Goods? You probably do so without even realizing. These items may be just about any chemical as a stock product or a component such as: cleaning products (drain cleaner), beauty products (fingernail polish remover), rechargeable batteries (in cameras, cell phones), dry ice, aerosol cans (hair spray, deodorant), compressed gases (propane, CO2 cartridges and pneumatic cylinders), magnets (speakers), infectious or biological specimens, etc.. Do you realize that there are very strict national and international laws that apply when you send them in commerce? Penalties for violating these laws can result in fines up to \$110,000 per incident and up to 10 years imprisonment. If this applies to you, please don’t panic but do read on.

According to transportation laws, many items that are familiar to you are required to be shipped only by personnel that have had formal training that allows them to certify that these materials have been packaged and documented properly to prevent accidents from occurring during transit. These laws are generally applicable only if you offer these items in commerce (i.e. – you pay to have them shipped, trade them for other commodities or exchange monies for them). If you simply receive these items in small quantities, use them as intended and do not further offer them in commerce, then you have probably been exempted from having to comply with these laws. If however, you have FEDEX, UPS, the US Postal Service or any other commercial carrier deliver them; you may be in violation of the law without even knowing it.

If you have any questions about whether or not you are in compliance, before you ship ask the carrier about your particular shipment. You can also contact EH&S hazardous material and dangerous goods shippers for assistance or advice at 644-6895. If you feel that you may be doing this routinely we can also provide training for you to become certified or even serve as the official shipper for University materials. Just remember to contact us immediately or as soon as is possible in advance of your planned shipment date.

New Online Training Courses

Asbestos Awareness Training for Building Occupants provides a general overview of asbestos containing materials, associated hazards and how FSU manages those materials to ensure building occupants are not exposed to asbestos fibers.

Biological Safety Training for Researchers covers safety issues associated with a Biosafety Level 2 and/or 3 laboratory as well as Animal Biosafety Level 2 facilities.

contaminated fish and shellfish; the easily observable effects of acid rain and severe and visible smog blanketing entire cities. The latter of these were shown to directly cause illness and death, which led to increased efforts to keep chemicals out of the environment, including requirements for the use of unleaded fuels in automobiles. Later in the 1970's and into the 1980's, other events, such as the permanent evacuation of the entire community of Love Canal, a residential development located at a former waste chemical burial site near Niagara Falls, New York, hastened passage of the Toxic Substances Control Act (1976); Resource Conservation and Recovery Act (1978); Comprehensive Environmental Response, Compensation and Liability Act (1980) and subsequent Superfund Amendments and Reauthorization Act (1986). The Union Carbide plant release of methyl isocyanate in Bhopal India (1984) caused several thousand immediate deaths and estimates of injuries to those nearby exceeded 500,000 individuals, greatly underscoring the need for legal protection of surrounding communities. The Emergency Planning and Community Right to Know Act (1986) was passed to try and prevent future occurrences and environmental injustices.

These actions taken by our government leaders to address public concern were in step with the formation and actions of many ecological, environmental, and non-governmental organizations that were formed during these decades. Probably the most memorable and effective Public Service Announcement ever produced was the result of the “Keep America Beautiful” campaign. Can you remember the television commercial that featured an actor, dressed as a Native American Chief in full regalia, stoically traveling through an area of industrial pollution that ends by showing him shedding a single tear as litter is thrown by his feet from a passing automobile? You can see view it at:

www.kab.org/site/PageServer?pagename=kab_history

So, why do we really need all of these laws, if such a desire to protect our environment is present and persistent? Sadly, history has revealed that without

strong coordination of broad and actively enforced regulations, including real consequences for non-compliance, there is not enough pressure to offer assurance that the laws will always be followed. Prior to the '80's, the best available methods for disposal resulted in hazardous pollutants being sent to an unlined landfill or simply poured into the sanitary sewage systems. Many of these materials were buried, dumped into ditches or poured directly into bodies of water. Dilution was thought to be the solution to pollution, and messy, volatile, dangerous and noxious materials were generally handled in that manner. These actions were not the work of an uncaring few citizens acting atrociously. Without economic pressures to manage waste appropriately, no commercial markets existed to allow affordable disposal of these types of materials.

We have obviously seen much better control of pollutants and corresponding improvements in environmental conditions across this country and locally. These ongoing efforts will continue to be important. Here on campus, FSU personnel do an outstanding job of helping recycle, controlling wastes and keeping storm water run-offs clean. Still, simple actions on your part can make a big difference. Recycle as much as possible; pick up trash you see before it has a chance to be carried into our storm water system and report anything to EH&S at 644-6895 that appears to be an improper disposal to storm water or solid waste.

Defensive Driving Tips

Look Ahead: You should sit comfortably, but upright, and keep both hands on the steering wheel. Slumping in the driver's seat, or steering with one hand makes it harder to control your vehicle, and your "relaxed" position can lead to a dangerously relaxed attitude toward driving.

Traffic conditions change constantly. You cannot afford to let your attention wander from what is going on around you. Always scan the road ahead. Do not use the

road or even the vehicle directly ahead as your only focal point. Look ahead so you can avoid, or lessen, potential problems.

Keep your eyes moving, notice what's happening at the sides of the road, and check behind you through your mirrors every few seconds.

Anticipate mistakes by other drivers and think about what you will do if a mistake does happen. Do not always assume that a driver approaching a STOP or YIELD sign on a side road is actually going to stop or yield. It is better to assume the other driver may not stop. Be ready to react.

Maintain a Safe Distance

Four of every ten crashes involve rear-end collisions, usually because someone is following too closely (tailgating).

Leave enough room between your vehicle and the one ahead so you can stop safely if the other vehicle stops suddenly.

For a good "space cushion," use the three-second rule: Choose an object near or above the road ahead, such as a sign, tree or over-pass. As the vehicle ahead passes it, count aloud, slowly, "one

thousand one, one thousand two, one thousand three." If you reach the same object before you finish counting, you are following too closely. Slow and let the other vehicle get further ahead. In bad weather and when following large trucks, including tractor-trailers, increase the count to at least four or five seconds for extra space.

If a driver tailgates behind you, move to another lane if possible, or slow down and pull off the road if necessary, to let the driver go by you. Be sure to signal when you drive off the road and when you return to it. Do not press your brakes to warn the offending driver - this could make a difficult situation become even more dangerous.

Brake early and gently when preparing to stop or turn. It gives drivers behind you plenty of warning that you are slowing down.

Be aware of space on either side of you, too, in case you have to change lanes quickly or pull over to avoid a hazard. If possible, leave yourself some "escape" room to your left and right.



Is It Safe To Eat Fish?

One of the most important ways that we can protect our health is by consuming a healthy diet. Consumption of fish is thought to be one excellent way to obtain nutritional components that are beneficial to cardiovascular health and nerve function by providing protein, Vitamin D, Selenium, omega-3 fatty acids and other vitamins and minerals. Specifically, sufficient intake of fish high in these nutrients has been linked to lower blood pressure and heart rate,

lower risk of stroke, and lower risk of mental decline. These nutrients are also shown to be important factors in healthy fetal brain development.

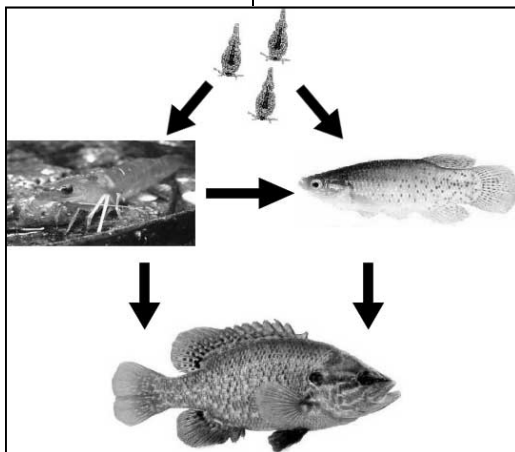
Public concern has arisen regarding the contamination of fish by petroleum products from the Deepwater Horizon Spill and by longer-term contamination with environmental toxicants, especially mercury. These concerns are heightened by reports of closures of federal and state fishing areas thought to be in danger of contamination. Therefore, it is important to weigh the health benefits of fish consumption against the potential for ingestion of harmful chemicals and to develop a thoughtful strategy for obtaining healthy foods.

Significant environmental mercury exposures have been shown to result in irreversible harm to human health, especially to children. Analyses of several environmental accidents that resulted in highly contaminated fish, wheat and whale meat that was eaten by pregnant women have led to an observed association of nervous system damage in children born from women with relatively higher body levels of mercury. Animals with environmental mercury exposures have exhibited slower growth and development and reduced reproduction.

Mercury is a naturally occurring element that is found in the environment. Mercury contamination of fish is a result of release of mercury into the environment from natural and manmade processes - coal burning, waste incineration, spills, and improper disposal of mercury

containing compounds and products into the environment. Mercury is washed into water bodies and is absorbed by aquatic life.

Human exposure occurs through ingestion of food sources contaminated with mercury, breathing contaminated air, release of mercury from dental amalgams, through direct skin contact with mercury sources like broken thermometers, or by inhaling mercury vapors from spilled mercury or mercury containing com-



pounds. Mercury in fish is of special concern because the form of mercury obtained from fish – methyl mercury – is considered to be somewhat more toxic to humans than other forms found in the environment. Further, methyl mercury is concentrated in

large predator fish as they eat smaller fish that contain small amounts of mercury.

The FDA has set a limit of 1 part per million (ppm) of mercury in seafood for both domestic and imported seafood, and fish that test above the FDA limit are not permitted to be sold in the United States. Nearly all fish contain trace amounts of mercury, but most fish contain much less than the FDA limit. Several charts and lists are available which indicate which fish have the lowest levels of mercury (salmon, tilapia, sardines, anchovies, shellfish) and which fish have relatively high levels (swordfish, shark, large tuna). One such chart made available by the

Florida Department of Health is the “Florida Commercial Fish Wallet Card for Women of Childbearing Age.” In addition to commercially sold fish, local fish may be contaminated with mercury or other chemicals. In 2009, the Florida Department of Health put out an advisory titled “Your Guide to Eating Fish Caught in Florida,” available at <http://www.doh.state.fl.us/floridafishadvice/>. This document provides information on contaminants in fish caught in local lakes and rivers.

Several strategies may be employed by individuals who wish to reap the enormous health benefits of fish consumption but limit mercury exposures. One may consume fish that are relatively high in mercury very infrequently, or limit consumption of fish to those fish that have been tested to have very little mercury. Women of child bearing age are advised to limit mercury exposures by choosing only fish that carry low levels of mercury, but to continue to eat fish to provide rich sources of nutrients important for normal human development.

Thus, it seems important to find available data on the types of foods we choose and the locales in which they originate. This is probably true of fish obtained from the Gulf of Mexico. Many miles of gulf waters once closed to fishing have now been reopened as fish are tested and found to be free of specific petroleum chemicals. Consumers, especially pregnant women and women who might become pregnant, would be wise to become educated on the specific locations of fish they intend to consume, including domestic and imported sources, and fish caught locally, and carefully choose food sources that have been tested and determined to be low in chemical contamination.



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