

# LIFE LINE

Volume 30 Issue 2 July 2014

### DIRECTOR'S LOG

#### Director's Log

As I write today, Hurricane Arthur is churning in the Atlantic off the Carolinas coast. It is expected to move northward along the coast and residents and businesses are bracing for possible heavy winds and rains. A hurricane watch has been issued for coastal areas of North Carolina. It is an early storm, so the season may be active this year.

The Federal Emergency Management Agency, FEMA, is a key source of advice and assistance in the preparation for and recovery from hurricanes. We at LSU have benefited from FEMA assistance through the years, and will in the future. I am providing below some of the important considerations in making preparations for storms, and for successful interaction with FEMA prior to, during and in the aftermath of a major storm. See the FEMA Public Assistance Guide for detailed information about FEMA rules.

FEMA comes to the assistance of tribal, state and local governments when a disaster declaration is requested by the governor of a state and is approved by the President of the United States. This is usually done prior to landfall. Once a declaration is issued, FEMA resources and assistance are made available. LSU is an eligible recipient of FEMA assistance, as it is a state government entity and an educational institution. FEMA reimburses certain costs related to the preparation for, and recovery from, the storm's damages. In January, 2013, the Sandy Recovery Act was passed, which expanded the scope of covered costs and provided for alternative procedures doling out their assistance.

On January 29, 2013, the Sandy Recovery Improvement Act of 2013, commonly called the Sandy Act became law and introduced several important changes in FEMA procedures. FEMA now has alternative procedures for debris handling and disposal, including:

1. Providing financial incentives and disincentives for timely and cost-effective completion of debris removal. Whereas past debris removal reimbursements has been capped at 75% of cost, the new procedures raises that to 85% if the debris is removed within 30 days. So it is important to have a plan in place and a

- contractor already under contract for this work.
- 2. Retaining Recycling Revenues (previously had to reimburse FEMA)
- 3. Reimbursement for Straight Time Force Account Labor (previously only overtime)
- 4. One-Time Incentive for having a pre-approved *Debris Management Plan* (2% for first 90 days).

There are some restrictions with these new procedures however. Notably, the legislation requires LSU to have at least one or more pre-qualified contractors to take advantage of the 2% incentive. We may also take advantage of some of the other provisions in the Law:

Reimbursement for "force account labor" (LSU employees) for preparation/response activities when assigned in roles they normally do not perform. I think this covers the costs of operating our EOC.

Public Assistance (PA) Grants can be based on Fixed Estimates for repair/replacement costs, and we can consolidate Multiple Fixed Estimate Sub-grants into a Single Sub-grant. We are also allowed to keep excess funds from these Fixed Estimate grants, if we use the funds for purposes that mitigate future damages from storms. Our in-house licensed architects/engineers can prepare these estimates, too.

Something that is often overlooked is that donated resources, including labor, equipment and materials can

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### **Hazard Communication Safety Data Sheets**

The O.S.H.A. Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products.

As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

**Section 1, Identification** includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

**Section 3, Composition/information on ingredients** includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

**Section 5, Fire-fighting measures** lists suitable extinguishing techniques, equipment; chemical hazards from fire.

**Section 6, Accidental release measures** lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

**Section 8, Exposure controls/personal protection** lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

**Section 11, Toxicological information** includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information\*

Section 13, Disposal considerations\*

Section 14, Transport information\*

Section 15, Regulatory information\*

Section 16, Other information, includes the date of preparation or last revision.

\*- Non-Mandatory

**LABELLING** of containers will include **pictograms** to be used to alert the users of the chemical hazards. Each pictogram has a symbol used to represent the hazards associated with the material. The labelling requirement goes in effect July 2015, but manufacturers will start to roll-out the use of the new pictograms. See <u>next page for Pictograms</u> and the hazards they represent. (note: this page is designed to be removed and placed as ready reference in the work area)

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# **HCS Pictograms and Hazards**

#### Health Hazard



- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

### **Flame**



- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

### **Exclamation Mark**



- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity (harmful)
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

### Gas Cylinder



Gases Under Pressure

### Corrosion



- Skin Corrosion/ Burns
- Eye Damage
- Corrosive to Metals

### **Exploding Bomb**



- Explosives
- Self-Reactives
- Organic Peroxides

#### Flame Over Circle



Oxidizers

### **Environment**

(Non-Mandatory)



Aquatic Toxicity

### Skull and Crossbones



 Acute Toxicity (fatal or toxic)

### **Research Lab Safety**

### Incident #1- April 2014:

At approximately 2:30 pm, a researcher was heating a bottle of media in order to pour some agar plates to complete the final phase of her research project.

She had placed the Pyrex bottle on a hot plate to heat the media and noticed it had become too hot and was beginning to boil.

The bottle had a screw type top that needed to be loosened before the heating process so that excess pressure would not build up in the bottle.

She had apparently forgotten to loosen the screw top.

As she picked up the bottle from the hot plate the heated glass on the bottom of the bottle gave way and the pressure inside the bottle caused it to shatter.

One large piece of glass from the bottle severely cut the top side of her wrist just above her left hand. She also received some minor cuts on the forearm of her right arm. The hot media did spray onto her hair, but she received no burns on her face or arms.

**Incident #2**— In another incident, a new LSU chemistry professor was given a shared lab space that was in the previous ownership of a professor who retired and left the university over a decade ago. The *Near Miss* began when the professor, prior to leaving, did not secure and clean the lab. Fast forward to 2014. The new professor is beginning the clean-out process of his new lab space and discovers several solvent containers dated back to 2004. One of the chemicals found was ethyl ether, which showed an extremely high level of peroxide formation. The ethyl ether containing the peroxides could have exploded and caused serious injuries. The new professor immediately contacted EHS personal.

Campus policy is that ether cans (or any peroxide forming chemical) should not be kept for more than a year due to the possibility of explosive peroxide formation. Current LSU procedures also require departing research professors to arrange for lab chemical cleanouts upon retirement or changing jobs."

For additional Lab Safety Information

Visit our website: ehs.lsu.edu

### **Boating Safety Information**

Published on Louisiana Department of Wildlife and Fisheries (http://www.wlf.louisiana.gov)

#### **Boating Safety Classes**

The Louisiana Department of Wildlife & Fisheries offers a free boating class that lasts between 6 and 8 hours that is usually completed in a day. The course includes information on choosing a boat, classification, hulls, motors, legal requirements and equipment requirements, many navigation rules, navigation charts, trailering, sailboats, and related subjects that include canoeing, personal watercraft and more. Completion of the course will result in the student being issued a vessel operators certification card.

Boating Classes with LDWF are offered year-round but are most popular in the spring and summer. These classes are offered free of charge to the public. (You only need to register for classes **that request pre-registration** as part of their notice.)

Mandatory Boating Education - All persons born after January 1, 1984, must complete a boating education course and carry proof of completion to operate a motorboat in excess of 10 horsepower. The person may operate the boat if accompanied by someone over 18 years of age who if required has completed the course.

**Personal Watercraft Age** - It is illegal for anyone under the age of 16 years of age to operate a personal watercraft .

#### **Boating Education Online**

A student may take the state approved online boating course provided by BoatUS.org or Boat-Ed.com. These courses are not administered by the Louisiana Department of Wildlife and Fisheries, but they are approved by the state to satisfy boating education requirements. The BoatUS.org course is free, while there is a fee for the online course charged by Boat-Ed. Upon successful completion the student is provided a temporary certificate from the website. The student is issued a state boating education card approximately 3-4 weeks later. For more information, visit www.boatus.org or www.boat-ed.com

**PFD's and CHILDREN** - Children 16 or younger must wear a properly sized and fitted PFD (Personal Flotation Device) when the boat is underway on all vessels less than 26 feet in length. Smaller children should have a PFD that has ample upper body flotation and a crotch strap, proper fitting is critical.

## Specific requirements for Personal Watercrafts (PWCS)

Each person riding on a PWC must wear a U.S. Coast Guard–approved personal flotation device (life jacket). An operator of a PWC equipped with a lanyard-type ignition safety switch must attach the lanyard to his or her person, clothing, or PFD.

It is illegal for anyone under the age of 16 years to operate a PWC.

It is also unlawful for a person who owns or has charge of a personal watercraft to knowingly permit a person under the age of 16 years to operate the PWC. It is illegal for a rental company to rent a personal watercraft to anyone under 16 years of age.

PWCs must be operated in a careful and responsible manner. For example, it is illegal for PWC operators to:

- Weave the PWC through congested waterway traffic.
- Jump the wake of another vessel when visibility is obstructed.
- Operate in a manner that requires swerving at the last possible moment to avoid collision.
- It is illegal to operate a PWC between sunset and sunrise.
- It is illegal to chase, harass, or disturb wildlife with your PWC.
- PWC operators should avoid operating around fishermen, anchored vessels, or swimmers.

#### Who May Operate a Vessel/PWC

Persons born after January 1, 1984, may not operate a motorboat or PWC powered by a motor in excess of 10 horsepower unless he or she has successfully completed a boating safety course approved by the National Association of State Boating Law Administrators (NASBLA). The person may operate a motorboat if accompanied by someone over 18 years of age who if required has completed the course (this provision DOES NOT apply to PWCs).

These persons must be in possession of evidence of completion of the approved course whenever operating such a vessel.

### **Prevent Heat-Related Illness**

Working or playing outdoors in our hot and humid environment increases the risk of heat-related illness. Individual susceptibility to heat-related illness can vary widely. Most importantly STAY HYDRATED by drinking water throughout the day. But here are a couple of other important tips that may also help cope with the heat.

<u>ACCLIMATIZE AND ADAPT</u> – If you work outdoors on a regular basis allow your body to gradually become conditioned to the heat as it gets hotter. But if you work in an air conditioned office all day your body does not acclimatize as well to the heat, so if you decide to spend a day outdoors, the risk for heat-related illness increases. Always take into account your physical conditioning before working or playing outdoors for extended periods in the heat.

<u>PAY ATTENTION TO THE HEAT INDEX</u> – Most weather websites and news programs will begin posting the heat index as the weather gets hotter. The U.S. National Oceanographic and Atmospheric Administration (NOAA) developed the heat index system, which combines both air temperature and relative humidity into a single value. The higher the heat index, the hotter the weather feels, since sweat does not readily evaporate and cool the skin. The heat index is a better measure than air temperature alone for estimating our risk from environmental heat sources. The chart below may help gauge your risk.

For more information go to this link <a href="http://nws.noaa.gov/os/heat/index.shtml">http://nws.noaa.gov/os/heat/index.shtml</a>.



### NOAA's National Weather Service

Heat Index Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution

Relative Humidity (%)

	HVI	COL	ma	Caut	NO.	
-	100	161	110	Cau	w	

Danger

Extreme Danger

Director's Log Continued from Page 1

be used to offset the university's share of costs when accounting for the storm expenses with FEMA. Donated resources must apply to actual eligible emergency work, such as debris removal or the filling and placing of sandbags, work at a shelter, storm preparations, etc. The donated services must be documented and must include a record of hours worked, number of workers at the work site, and a description of work. Volunteer labor will be valued at the same hourly labor rate as a similarly qualified person in the applicant's organization who normally performs similar work. Donated equipment and materials are valued at the FEMA published rates and commercial costs, respectively.

Livingston Parish has been unsuccessful in getting FEMA reimbursement in an amount that is over \$50,000,000. Preplanning and good documentation for costs can help us avoid such conflicts.

Each department which prepares plans for storm season, should assure that all costs associated with preparing for the storm, such as boarding up windows, relocating items and equipment to higher ground, etc. are documented for reimbursement purposes. If you have questions about storm planning, feel free to call EHS (8-5640) or Risk Management (8-3297), and we can assist you with finding the answers.

Let's prepare for the storm both at home and at work. A brief personal note: I am getting married on July 5, wish me luck!

Have a joyous and SAFE summer!

#### **Emergency Telephone Numbers**

LSU Police

578-3231 or 911 from campus phone

**Facility Services** 

578-3186 (Non-emergency)

578-2327 (24 hr. emergency)

**Environmental, Health and Safety (EHS)** 

578-5640

**Radiation Safety** 

578-2747

#### ++++ Safety Meetings ++++

As a minimum, Department Safety meetings should be conducted Quarterly. This newsletter can be used as safety meeting material. Please route through your department via e-mail and request a "return receipt," or circulate with "signin" sheet containing printed name/date/ and initial.

### Office of Environmental Health and Safety (E.H.S.) 201C Copy and Mail Center **South Stadium Drive** 578-5640

www.ehs.lsu.edu

Mike Durham, Director

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Stay Cool!!

LSU IS AN EQUAL OPPORTUNITY/ACCESS UNIVERSITY