

# Region II and



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Volume 3, Issue 1

January 31, 2009

## SAFETY IN PICTURES

### ARE YOU FEELING LUCKY!

Look at the picture to the right and you can see where this driver broke through the guardrail, on the right side of the culvert, where the people are standing on the road, pointing.

The pick-up was traveling about 75 mph from right to left when it crashed through the guardrail.

It flipped end-over-end bounced off and across the culvert outlet, and landed right side up on the left side of the culvert, facing the opposite direction from which the driver was traveling.

The 22-year-old driver and his 18-year-old passenger were unharmed except for minor cuts and bruises.

Just outside Flagstaff, AZ on US Hwy 100.



**WE CAN SEE THAT THE OCCUPANTS MADE A BAD DECISION (SPEED, INATTENTION?) AND A GOOD DECISION (SEAT BELTS) TO SURVIVE THIS ONE. BUT, IF YOU DON'T THINK LUCK PLAYED A ROLE HERE, TAKE A LOOK AT THE PICTURE ON PAGE 3! - EDITOR**

## EDITORS CORNER -

Very shortly, ASSE Members will have another chance to vote on a dues increase, possibly before this newsletter gets to you. In this economic climate it may be difficult for some to agree with the proposed \$10/year for three years but I hope you will consider the following.

It has been about nine years (1999) since the last increase and the Society has communi-

cated, at great length, their justification in support of this graduated increase and the Region and Chapters should have discussed the issues with you by now.

The justification is sound, the USA economy is still strong and will survive the best efforts of the congress and with some planning the extra \$30 dollars will be managed by most of the

membership. For those whose management cannot continue to support you, consider the edge your career gains by your association with ASSE and thousands of knowledgeable Colleagues.

I hope you will be able to support the Society's request for a dues increase. They've worked hard to manage and operate in a budget-conscious manner. Now it's our turn. - Ernie Harper -

## NEWS AROUND REGION II and the SOCIETY

### Jim's CHAPTER /SECTION VISIT SCHEDULE:

#### Chapter/Section/City/Date/Purpose:

- Middle East Chapter, July 3, 2008, Officer Installation
- Middle East Chapter, January 29, 2009, Chapter Meeting
- AZ Chapter, Numerous, Planning & Chapter Mtg.
- So. AZ Chapter, September 9, 2008, Chapter Meeting
- Utah Chapter, October 16, 2008 PDC
- CO chapter, November 11, 2008 Chapter Meeting
- Four Corners, January 16, 2009, Chapter Meeting
- So. CO Chapter, March 20, 2009 Chapter Meeting
- Big Sky, April 9-10, 2009, Chapter Meetings
- New Mexico, May 4, 2009, PDC
- Snake River, July 21, 2009, Chapter Meeting

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#### LAST CHANCE REMINDER—ASSE

ASSE would like to remind everyone during this busy time of year not to forget to submit posters for the annual ASSE "Safety on the Job" Poster Contest for children aged 5-14. Members can support non-members' such as supporting local schools or at your business.

The contest goes from September 19, 2008 through February 14, 2009. All entries MUST be postmarked by February 14 – Valentine's Day – you can't forget that! Go to [www.asse.org/naosh09](http://www.asse.org/naosh09) for poster contest rules and entry form. All poster contestants are winners!

### REGION II HAS SCHEDULED THE NEXT REGIONAL OPERATING COMMITTEE (ROC's) MEETINGS AS FOLLOWS

- Las Vegas: March 13-14, 2009
- Reno: August 2009
- Phoenix: March 2010
- Albuquerque: October 2010
- Tucson: March 2011

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#### Early Online Registration for SAFETY 2009 is Now OPEN.

Thousands of Safety, Health and Environmental professionals will choose SAFETY 2009 as their primary source for professional development this year. Be a part of the excitement. Learn from the successes of other organizations, take away examples and strategies, network with your peers and earn CEUs.

#### Budgeting for end of the year? Register now and save \$150.

Visit [SAFETY2009.org](http://SAFETY2009.org) or any of the links above for detailed information.

If you have any questions, see the SAFETY 2009 [Frequently Asked Questions \(FAQ\)](#) page, or contact customer service at 847.699.2929.

## Share the Solutions

New Mexico's PDC May 4th-5th, 2009

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ASSE'S National PDC June 22—July 2 2009 Las Vegas

## PLANNING AHEAD—THE NEW MEXICO CHAPTER'S 34th PDC

Planning for the NM Chapter of the ASSE's 34<sup>th</sup> Annual Professional Development Conference is well under way.

Reflecting the current economic environment, the Conference theme this year is: "Enhancing SHE leadership in a challenging economy."

Dates for this year's conference will be Monday, May 4 and Tuesday, May 5<sup>th</sup> (Mark your calendar!). The PDC will be held at the UNM Continuing Education Conference Center (<http://dce.unm.edu/conference-center.htm>), 1634 University Blvd. NE. (Map and directions are available at: <http://dce.unm.edu/uploads/file/map-directions.pdf>)

The technical component of the PDC will be divided into three tracks: General Safety Topics; Construction Safety Topics and Environmental/Industrial Hygiene/Occupational Health. Breakout rooms at the facility are more spacious and provide more options for presenters than in the past, and the General Session auditorium will once again host Vendor tables, luncheon speakers and the annual SPY awards.

The Planning Committee has promised to ensure that this year's PDC provides better value for significantly lower cost to the members. Considering that companies are less likely to fund travel to San Antonio for the Society event this year,

the NM Chapter conference is the most cost effective way to earn COC and CEU points and catch up with colleagues and friends.

Attendee's will see a price break if registered prior to April 1st.

ASSE members & Group of 3 or more before April 1st; \$100 (1 day) or \$175 (2 days).

ASSE member after April 1st, \$100/\$195 (1 or 2 days).

Associate AIHA, ACHMM); \$100/\$175 (1 or 2 days).

Vendors by April 1st; \$150/\$300 (1 or 2 Days)

More: Visit the NM WEB SITE

## A Message From Jim, Your 2008 - 2010 Region II VP



**Jim Gallup, P.E., CSP**  
**Senior Fire Protection Consultant with Rolf Jensen and Associates (RJA)**

<http://www.rjagroup.com/rja/index.php>

**REGION II VP REPORT—**  
**January 6th, 2009**

Greetings to Region III!

The Region II Presidents have asked that I use this forum to communicate directly with each of the 2500 members of ASSE Region II. The intent is that the Chapter Presidents will forward this Newsletter to each of the Chapter members. We all need to thank the Region II Newsletter Editor, Ernie Harper of the Snake River Chapter for his dedicated work on the Newsletter. The Editor job is a tough volunteer position.

Past Newsletters can be found on the Region II website [www.region2.asse.org](http://www.region2.asse.org). We also need to thank Mike Lorenzo of the Colorado Chapter for his work on the Region II website. Check it out!

The decision makers for the Region are the Chapter Presidents and the two Area Directors. The Society recognizes these decision makers as the Regional Operating Committee or ROC. The ROC meets in the spring and fall to establish a direction for Region II.

The next ROC will be on March 13-14 in Las Vegas. Three critical Task Forces will recommend a Region II direction for the next several years. The following are the categories of focus for the Task Forces:

- Financial Independence for Region II
- Improve the Use of Technology
- Improve the Delivery of CoPS Information

The Task Forces are led respectively by Harold Gribow of the AZ Chapter, Doug Handy of the Utah Chapter, and Carl Hamilton of the AZ Chapter. My gratitude goes out to these three individuals for the efforts needed to make incremental improvements in Region II.

*(Cont'd)* - Two additional people need to be thanked. Vicki Allen-Buglisi of the AZ Chapter is chairing the Region II Awards and Honors Committee. This committee proposes a Region II SPY award winner. This committee's work is nearly finished. Denis White of the AZ Chapter is the Region II Treasurer and is doing a good job keeping us financially sound. Thanks to both of you.

There are numerous volunteers working for Region II on the various Task Forces and Committees. Although I have not listed your names, I want to sincerely thank you. You are making a difference in Region II.

After the March 2009 ROC you will begin to see some incremental improvements in Region II. We welcome your feedback.

Jim Gallup

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### Communications Note:

### Society Specialty Leaders:

**CoPD:** Dewey Whitmore, Richard Pollock

**CoPA:** Dennis Hudson, Tom Lawrence

**CoPS:** Tim Fisher, George Pearson

**CoMRA:** Terry Wilkinson, Darryl Hill

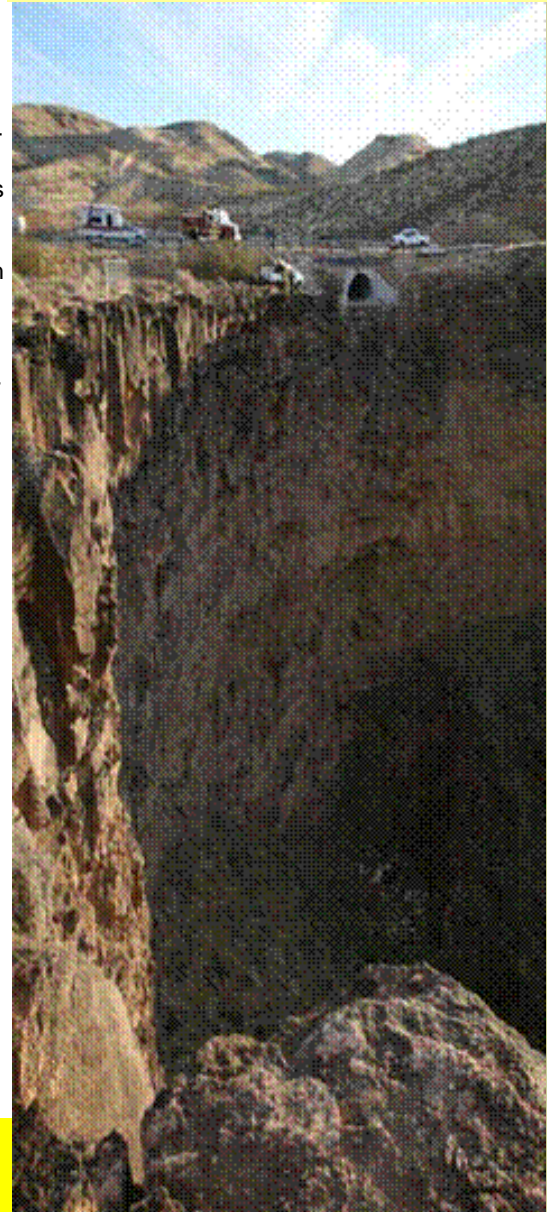
## Have you tried our Region II Website Yet?

<http://region2.asse.org>

Questions or requests for Region II's Web Site contact our liaison, Michael Lorenzo.

[michael.lorenzo@pinnacol.com](mailto:michael.lorenzo@pinnacol.com)

## Safety in Pictures Continued from page I



**REALLY, REALLY, LUCKY!**

**I'M NOT TOO SURE THE TWO INDIVIDUALS STANDING BETWEEN THE TRUCK AND THE DROP OFF ARE USING THEIR BEST JUDGEMENT, EITHER.**

**Refer back to page I for a closer view**

## ASSE SOCIETY AND OTHER NEWS FOR THE SAFETY PROFESSIONAL

### A10 ASC HOSTING PUBLIC REVIEW OF A10.11-200X & A10.37-200X STANDARDS

THE A10 ASC FOR CONSTRUCTION AND DEMOLITION OPERATIONS IS HOSTING A PUBLIC REVIEW OF THE PROPOSED/REVISED DRAFT STANDARDS, "SAFETY REQUIREMENTS FOR PERSONNEL AND DEBRIS NETS" (ANSI/ASSE A10.11-200X) AND "DEBRIS NET SYSTEMS USED DURING CONSTRUCTION AND DEMOLITION OPERATIONS" (ANSI/ASSE A10.37-200X), UNTIL FEBRUARY 6, 2009.

#### THE PUBLIC REVIEW PACKAGE INCLUDES:

Proposed/revise ANSI/ASSE A10.11-200x  
ANSI A10.11-1989 (R1998)  
(historical document)  
ANSI A10.11-1989 (historical document)  
ANSI A10.11-1979 (historical document)  
ANSI A10.11-1971 (historical document)  
Proposed/revise ANSI/ASSE A10.37-200x  
ANSI A10.37-1996 standard  
(historical document)  
Comment templates

### ANSI/ASSE

#### Reaffirmed Z244.1 Standard Now Available

The newly reaffirmed standard, "Control of Hazardous Energy—Lockout/Tagout and Alternative Methods" (ANSI/ASSE Z244.1-2003) (R2008) is now available for purchase on ASSE's website. This standard establishes requirements for the control of hazardous energy associated with machines, equipment or processes that could cause injury to personnel.

For more information, visit <https://www.asse.org/cartpage.php?link=Z244-1-R2008>.

**OSHA—"QUICK PICKS,"** a twice monthly publication is available via email and often provides a useful means to track issues of interest to the safety professional. You can check this out by going to: [http://www.osha.gov/pls/quicktakes/e\\_subscribe.subscribe](http://www.osha.gov/pls/quicktakes/e_subscribe.subscribe)

Some examples from their February 1 edition:

#### OSHA publishes proposed rule to revise procedures for fit testing respirators

OSHA has proposed two revised fit test procedures under OSHA's Respiratory Protection Standard for determining the effectiveness of facemasks. The Notice of Proposed Rulemaking appears in the [Jan. 21 Federal Register](#).

#### Occupational safety and health needs of the aging workforce is focus of upcoming conference.

Strategies for anticipating the occupational safety and health needs of the aging U.S. workforce are the focus of an OSHA co-sponsored Feb. 17-18 conference in Washington, D.C. Click [here](#) for more information.

#### OSHA's role in upcoming construction safety conference:

Workplace violations, Voluntary Protection Programs and OSHA training are the subjects of presentations OSHA's Chicago regional officials will make at the 19th Annual Construction Safety Conference and Exposition, Feb. 17-19 at the Donald E. Stephens Convention Center in

Rosemont, Ill. Click [here](#) for more details.

#### Worker Protection Following a Disaster is Focus of New OSHA QuickCard

[Protecting Worker Safety and Health Under the National Response Framework](#)

is the subject of a new QuickCard posted to OSHA's Web site.

Following a disaster, OSHA often serves as the coordinating agency when federal, state, tribal and local assets are overwhelmed and assistance is needed to protect employees during an emergency. The Federal Emergency Management Agency can activate OSHA to coordinate the federal worker safety and health resources and technical assistance. The card describes what these services can include. It can be downloaded from OSHA's [Publications](#).

### OSHA & The Independent Electrical Contractors, Inc. (IEC)

Signed August 30, 2002; renewed April 5, 2004; renewed October 30, 2006; renewed December 8, 2008

Through the Alliance, OSHA and IEC will continue to work together to provide IEC members and others in the construction industry with information, guidance, and access to training resources that will help them protect employees' health and safety particularly in reducing and preventing exposure to fall and arc flash hazards and addressing electrical and motor vehicle safety issues. The Alliance goals include:

Work with OSHA to provide expertise in developing information on the recognition and prevention of workplace hazards, and to provide expertise in developing ways of communicating such information (e.g. print and electronic media, electronic assistance tools and OSHA's and the IEC's Web sites) to

employers and employees in the industry.

Share information among OSHA personnel and industry safety and health professionals regarding IEC's best practices or effective approaches and publicize results through outreach by IEC and

through OSHA- or IEC-developed materials, training programs, workshops, seminars, and lectures (or any other applicable forum). Promote and encourage IEC's members' or worksites' participation in OSHA's cooperative programs such as compliance assistance, the Voluntary Protection Programs, and the On-site Consultation Program and its Safety and Health Achievement Recognition Program.

Editor Note—Besides notable Scien-



tist's like Thomas Lentz sitting at the far left (NIOSH), ASSE's own [John Mroszczyk](#) can be seen sitting on the far right at the OSHA Alliance Program Construction Roundtable Joint Design for Safety and Fall Protection Workgroup meeting on September 18, 2008.

A FRESH WATER HAZARD  
**MARINA ELECTRICAL SHOCK DROWNINGS**

BY CO-AUTHORS  
Jim Shafer and Ernie Harper  
January 31<sup>st</sup>, 2009

This is the third of three Marina-related articles published in the Region II newsletter, the first two exposed a little know hazard concerning Carbon Monoxide related drowning's at Marinas (September 2007 and March 2008 issues) totaling 272 fatalities between 1990 – 2004, all in Region II waters.

The Mother of the deceased authorized her Attorney, the Hon. B. Clark Batten II to write up the following incident. The case has settled and this Mother wanted the incident to reach as many people as possible. A portion of the May 13<sup>th</sup>, 2008 write up follows.

On June 27<sup>th</sup>, 2005 Samantha Chipley and her friends Margaret, Susie and Courtney arrived at the Scott Creek Marina on Cave Run Lake, which is located in Eastern Kentucky. The girls were planning on spending the night on a houseboat owned by Susie's father. This was Samantha's first time at the marina. It was a very hot June afternoon and the four girls jumped in the water. Although there were "No Swimming" signs that warned of the danger of electrocution, it was common practice for patrons to swim at the marina. At the time of the incident, Samantha and Margaret were in the water swimming while Susie and Courtney were retrieving floats from another boat that was nearby. Samantha tried to climb on a raft with Margaret when she suddenly started jerking in the water. Margaret jumped off the raft to help Samantha and felt a shock go through her entire body. Both Samantha and Margaret swam towards the houseboat.

Susie and Courtney rushed to the back of the boat and tried to help get Samantha and Margaret out of the water. Eventually, Margaret was pulled to safety by grabbing on to a beach towel. The girls watched helplessly as Samantha was shocked for several minutes while she struggled to stay above water. A Good Samaritan dove into the water in an attempt save Samantha. When the Samaritan was shocked, in what he later described as being locked up in a "dead hum," he was forced to turn around, barely escaping. By all accounts, the incident lasted about seven (7) minutes. Eventually Samantha disappeared in to the darkness. Her body was recovered hours later.

Subsequent investigation revealed that the houseboat's wiring system did not contain a ground wire. At the time of the incident, the boat was plugged into the marina's power pedestal. It was believed by many (also based on lab tests) that a battery charger located in the engine compartment of the boat faulted which energized the boat's hull. Others opined that a light aboard the houseboat shorted out and energized the hull. Once the boat's hull became energized, the water surrounding the boat and the marina became lethal.

The case above was settled against the Marina for \$700,000 following two years of litigation.

**Editors Note -** The full write up on this tragic incident was brought to our attention by my Co-Author Jim Shafer and published in the Mike Holt Newsletter on December 16, 2008. This triggered an enormous technical "blogging" session covering several weeks including Jim and your Editor. I am very pleased that Jim agreed to assist us because he is perhaps the foremost acknowledged expert on this issue I know and I will use much of his material here.

Well over 2,000 Safety Professionals will initially read this article and will hopefully find opportunities to protect their family, friends and employees out on team-building or vacationing this summer and can communicate or otherwise address the safety of fresh water Marinas in your areas. Please remember that boat/yacht owners and manufacturers share responsibilities as well.

We are generally in agreement that, in salt water, the high voltage gradients required for electric shock drowning is unlikely and studies by Jim Shafer corroborate this conclusion. This is clearly a fresh water issue. (*Sea Water is a much better conductor of electrical current. - Editor*)

**The inconspicuous problem -** Electric power quietly and unobtrusively provides comfort and services to marina customers marina staff, and boat owners. They might not be able to recognize the symptoms of a serious potential problem until it is too late to prevent injury or property damage. This is certainly the case in the more than 100 accidents and 40 fatalities that Jim Shafer (Co-Author and Marine Consultant) has examined over the years.

Analysis of marina electrical accidents indicates that there are two common elements in every incident. The first element is defined as a "ground fault," that is, a short circuit, wherein the insulation has failed on the energized (hot) conductor, thereby allowing it to come in contact with a bonded (grounded) metal chassis or component on the boat or dock. The second element, and the more critical one, is-defined as a failure of the bonding connection between the shore ground and this component, which then allows the surface potential (voltage) to rise to dangerous or lethal levels.

(Continued on page 6)

(Continued from page 5)

Since fault currents will take all available paths back to the source some portion of this current will always return to the source in the water, even with a bonding system in good condition. Clamping an AC ammeter onto the shore cord will display this "missing" current. Since the possibility of personal injury, due to these water path currents, is greatly increased in fresh water assuring the integrity of the bonding system becomes even more important, as will be seen below. Fresh water is a poor conductor compared to a human.

Editor - The biological effects of electric current on the human body are well established. The effects of electrical shocks depend on body resistance, voltage, frequency, parts of the body affected and time of exposure. In general, AC (alternating current) is much more hazardous than DC (direct current) and our bodies absorb energy readily at 50 – 60 HZ (Cycles/Second). Skin resistance varies from 100,000 – 600,000 ohms (DRY Skin) to as low as 1,000 ohms (WET Skin) and tend to be less for children, more resistance for women while men are a bit higher than women. Internal body resistance ranges between 100 – 500 ohms. Current flow through the body can be detected as low as 1.0 milliamp while painful shock begins above 3.0—5.0 milliamps and involuntary muscular (contraction) responses with increased breathing difficulties begin to occur around 10—15 milliamps, especially if small children are involved.

Consider that a body in fresh water will have a skin/body resistance (impedance) around 1500 ohms meaning that AC voltages as low as 25 volts ( $I = \text{volts/body impedance or } I = 25\text{vac}/1500 \text{ ohms} = 0.0167 \text{ Amps or } 16.7 \text{ milliamps.}$ ) can begin to incapacitate a swimmer. Voltage gradients are in play here similar to that experienced by individuals exposed to ground currents from lightning or downed power lines between one foot and the other or different body parts such as immersed hands near the surface and lower extremities several feet below the upper body. However, the paramount component once the victim is in water occurs if they are in parallel with the energy release and current pathways between source and its return. Once energized (live) parts come into contact with the water, whether from a boats metal hull, an unbonded metal halogen light welded to the dock, submerged dock wiring, extension cord, energized neutral that was connected to the bonding system, a serious hazard does exist.

**The Solution** - Here are some of the recommended methods and actions that marinas can and should undertake to prevent electrical ground fault accidents:

- (a) visually inspect all electrical cords and outlets for any discrepancies listed in NFPA-303-2006;
- (b) Install a ground fault circuit interrupter (GFCI) on a boat or power pedestal;
- (c) Install a ground fault detection system;
- (d) Determine the integrity of the bonding system and repair as needed; (Critical!)
- (e) Continuously monitor for ground faults.
- (f) Attend the Marina Electrical Safety Seminars to keep abreast of the latest advancements and
- (g) Designate a swimming area with no electrical service.

Although this article refers to some sections of NFPA-303-2006 that are not considered mandatory, marinas should not be lulled into the belief that they do not have to be considered. This standard describes "best practices" that were authored by knowledgeable people in the industry and addresses issues that are known causes of injury and property damage. Ignoring these sections is really not an option.

However, the previously mentioned actions may help give the marinas the ability to acquire the ability to meet its responsibility to reduce risks and provide a safer environment for its customers, it is just the beginning. Marinas must become familiar with NFPA-303-2006 (or latest version) which covers dock and boat bonding systems and much more such as training for their dock hands.

*Jim Shafer, owner of Harbor Marine Consultants, inc. in Vero Beach, Florida; Jim can be reached by phone at 772/284-0855 or via email < [kp2r@bellsouth.net](mailto:kp2r@bellsouth.net) >. He welcomes your comments and/or questions. A number of articles and a brochure on the Marina Electrical Safety Seminar are available upon request. Information on Ground Fault Monitoring may be found on the Web Site; < [www.marinaquard.net](http://www.marinaquard.net) >*

*Ernie Harper, formally Hewlett Packard's Sr. Safety & Forensics Engineer and their acknowledged Electrical Safety Expert and owner of Industrial Safety Consulting in Boise Idaho is the current and originating Editor of ASSE's Region II Newsletter. Ernie can be reached via email at, < [ernisc@mindspring.com](mailto:ernisc@mindspring.com) >*