

# *Wright-Patterson AFB, Ohio*



## Environmental, Safety and Occupational Health (ESOH) Newsletter

**January - February 2004**

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# Diverting Trash to Treasure - How to Recycle a Building

Mary Shelly, AFRL/MLOF

Nic Nicodemus believes in recycling. As Design Review Coordinator within the Pollution Prevention program of the 88 ABW Office of Environmental Management, Nic is always looking for ways to reduce, reuse, and recycle and helps other organizations do the same. So when Keith Posson, the Site Superintendent for the demolition of Building 125 at 5<sup>th</sup> and P Streets in Area B came to him with some ideas for “recycling” building 125, Nic was ready to get involved. Keith Posson, a contractor with Sentinel out of Fort Knox, KY is very proactive with integrating recycling into the demolition of buildings. Keith has a background in construction in Chicago, where due to high transportation costs and limited landfill availability, recycling is much more cost-effective compared to disposal of demolition debris at a solid waste landfill, not to mention better for the environment.



**Nic Nicodemus with  
Environmental Management**

Building 125, which practically everyone at Wright-Patterson has been in at one time or another for training, was scheduled for demolition in 1997, but the project was put on hold until funding became available in 2003. The project, managed by Gary Stevens, was a U.S. Army Corp of Engineers effort. Normally the demolition debris from old buildings like 125 would be disposed of at solid waste landfills, costing approximately \$80/ton. But with landfill space at a premium, costs continuing to rise, and more emphasis being placed on waste minimization and recycling, it makes fiscal sense to consider other, more creative options.



**Looking south at building 125**

The first items Keith and Nic recycled from the building 125 demolition were the ceiling tiles, which the base has not been actively recycling up to this point. Early in the process, Armstrong, a company that manufactures ceiling tiles and other products, was contacted and they expressed an interest in taking the ceiling tiles. So before the bulldozers came, the tiles were removed and neatly palletized approximately six feet high to fit into a semi truck.



**Ceiling tiles staged for shipping  
to Armstrong for recycling**

The tiles were then shrunk-wrapped by hand and when enough for a semi-load were gathered, Armstrong sent a semi to pick up the load. Paying for the transportation, Armstrong took in total 80,000 pounds (40 tons or 3 ½ semi truck loads) of ceiling tiles back to their factory for recycling into new ceiling tiles. This arrangement was beneficial to both parties as Armstrong will reutilize the tiles to make new ones and the Air Force saves approximately \$3000-\$4000 in landfill costs and tipping fees, plus the Air Force will not be liable for environmental implications of 40 tons of waste rotting in a landfill. Even the pallets used to ship the ceiling tiles were recycled, as they were recovered from the recycling center where they had previously been turned in for disposal.



**Volunteers from Habitat for Humanity**

Another significant part of the recycling effort at building 125 involved donating items to the Cincinnati branch of Habitat for Humanity, a non-profit organization that builds homes for qualified low-income families or people who otherwise wouldn't have a home. Recipients of the homes must work a specified number of hours to qualify and any items donated to Habitat for Humanity reduce the cost of the homes built. Nic and Keith worked

with volunteers from Habitat for Humanity to collect a number of items for donation. Habitat volunteers came mainly on Saturdays to dismantle and collect items while smaller groups worked throughout the following weeks. Volunteers included personnel from Habitat for Humanity, Sentinel Contractors, Army Corps of Engineers, WPAFB, Keen & Cross Asbestos Abatement Co., and various other youth and church groups.

Six semi-loads full or 50,000 cubic feet of compressed fiberglass insulation were removed from the building for reuse. These were compressed down to two semi-loads prior to removal. Over 300 solid wood doors were donated to Habitat for Humanity, which will be used for churches, warehouses, and other non-profit buildings being revitalized. Habitat for Humanity also makes shelves from recycled doors. Light fixtures from the building were surveyed and those not containing PCBs were donated to the group.



**Fiberglass insulation and wooden door staged for recycling**

Even the old parking lots and sidewalks were recycled! All of the asphalt and concrete was removed and trucked to an aggregate and asphalt recycling facility

where it will be ground up for reuse. Old concrete will be used for sub-base for new concrete installation projects and the asphalt will be recycled into new asphalt. While the base did pay for transportation costs, the disposal fees for concrete and asphalt were avoided with this process.

All smoke detectors from the building were turned back in to CE for reuse in other buildings. Wooden ceiling and floor beams were removed and approximately twelve were given to the gun range in area B. The rest are being sent to a mill in New York to be made into other dimensional lumber. Backflow preventers were removed from the water lines, modified, and used by the contractors on their fire hoses during spraying for dust prevention. Precious metals and others were recovered where possible for recycling also. Copper wire, water lines, cast iron, aluminum (from siding, studs, and other items), structural steel, and other metals were all recovered, segregated and sold as recycled scrap metals. A large computer room power supply was removed and



**Site superintendent  
Keith Posson removes door.  
Light fixtures were also salvaged.**

and sold back to the manufacturer. Miscellaneous items left behind such as window screens, chalkboards, metal cabinets, even carpet squares were all recovered for reuse.

One of the major things that Nic Nicodemus looks for during his design review and during building demolition are items typically found in buildings that contain hazardous components. If these items are inadvertently disposed of in a solid waste landfill instead of being disposed of as hazardous waste, the base could be subject to significant fines from the EPA. So prior to demolition, these items must be identified and removed for proper reuse or disposal.

Refrigerant from all the air conditioning units (HCFC-22 which is ozone-depleting) was reclaimed and returned to manufacturer for reuse. Mercury-containing lamps and PCB-containing ballasts were removed and are being recycled through existing WPAFB contracts. All the lead-acid emergency lighting batteries were removed and recycled through the Base Recycling center.

Periodically when organizations vacate buildings on base, abandoned hazardous materials are left behind and then found during the demolition project, sometimes years later. This causes project delays as Environmental Management must look for the owner of the HAZMAT, characterize it and see if it can be reutilized elsewhere on base, or most commonly, determine proper hazardous waste disposal procedures, which often results in costly laboratory analysis. As a result of chemicals abandoned during Phase I of the project, the Installation Hazardous Substance Steering Group implemented procedures where Unit Environmental Coordinators perform inspections of areas that organizations plan to vacate to ensure chemicals are not inadvertently left behind. Nic was impressed with the

efforts of Mike Banford, Chief of the Education and Training Flight, the prior residents of building 125. “Mike did an excellent job of identifying and removing all of the hazardous materials prior to vacating the building. He did a lot of work up front which really helped later in the demolition process,” stated Nic.

Labor costs must be considered for the time it takes to dismantle an old building for recycling, so Nic and Keith had to look for cost-effective ways to remove and recycle the construction debris, which is just what they did. As part of its



**Building 125 finally comes down**

recycling initiative, the Air Force has set a target goal for bases to divert 40% of construction debris from landfills. With Nic and Keith’s efforts and leadership, along with many workers and volunteers, this project hopes to exceed 60%. By looking for alternative recycling options rather than disposal, Nic and Keith saved the Air Force a significant amount of money and potential environmental liability, while gaining valuable “lessons learned” to apply to future demolition projects on Base.

**For more information on this project, contact Nic Nicodemus at 75527.**

**For Pollution Prevention suggestions or questions, contact the 88 ABW Office of Environmental Management at (937) 257-5627.**

# The Hidden Danger: Latex Allergy

Natural rubber latex comes from a liquid in rubber trees. This liquid is processed to make many rubber products used at home and work. The protein in rubber can cause an allergic reaction in some people. This allergic reaction is more acute with thin, stretchy rubber, the kind found in gloves, condoms and balloons than with hard rubber found in tires.



## Some familiar household products containing latex:

Balloons	chewing gum	rubber toys	pacifiers
baby-bottle nipples	rubber bands	adhesive tape	bandages
diapers	sanitary pads	condoms	elastic in underwear

In addition, many medical and dental supplies contain latex: gloves, urinary catheters, dental dams and material used to fill root canals, tourniquets and resuscitation equipment.

All of these items comprise only a *partial* list of latex-containing items – be sure to do your own research in your home and work environment to see where latex is found. Non-latex substitutes can be found for all of these latex-containing items.

Many rubber gloves are coated with cornstarch to make them easier to put on and off - rubber protein particles stick to this powder and fly into the air when the gloves are removed. In places such as hospitals or doctors and dentists offices where latex gloves are removed frequently, the air may contain many latex particles.



INFANTS AND CHILDREN WHO HAVE MULTIPLE SURGERIES OR MEDICAL PROCEDURES AND HEALTH CARE WORKERS ARE PARTICULARLY AT RISK FOR LATEX ALLERGY.

## SYMPTOMS OF LATEX ALLERGY

The most common and mild symptoms of latex allergy are a hive-like rash, swollen or watery eyes, sneezing or running nose and coughing.

Severe symptoms are chest tightness, shortness or breath, shock and even death. A latex sensitive person can have a life-threatening allergic reaction without any previous warning or symptoms. People with spina bifida and urologic abnormalities are at increased risk for latex allergy.

## PREVENTING LATEX ALLERGY

The more frequently one is exposed to latex, the more severe the sensitization and reaction. Therefore, it is very important that infants who, from birth on, will need many operations are not exposed to latex at all! The best course of action is prevention to exposure and subsequent sensitization to the latex.

## LATEX ALLERGY AND FOOD

Some food proteins and some proteins in rubber are similar. Therefore certain foods can evoke a reaction in people with latex allergy. It is recommended that only foods that have already caused an allergic reaction be avoided so that proper nutrition is maintained.

Common foods to avoid are: bananas, avocados, chestnuts, kiwi fruit and tomatoes. Diet sodas should also be avoided (These sodas contain Nutrasweet® which is made from bananas).

## TESTING FOR LATEX ALLERGY

Providing a doctor with a detailed history and having a blood test taken can confirm whether or not one has a latex allergy. Skin testing can also be done, but only at specialized centers since it can cause a severe reaction. Only specially trained professionals should administer such tests.

## WHAT TO DO IF SOMEONE HAS A LATEX ALLERGY

Although there is no cure for latex allergy, risk of reaction can be reduced by avoiding direct contact with latex. It is imperative that a person with a latex allergy learns which products in the environment contain latex and learn how to substitute non-latex products. It is important to avoid breathing in latex particles from powered gloves.



Parents should ensure that their infants and children are always handled by caregivers wearing non-latex gloves. Children as well as adults should wear a Medic-Alert bracelet or necklace. Talk to the doctor about a prescription for an epinephrine self-injection (“Epi-Pen”) pen to use in case of serious reaction. Older children should consider carrying non-latex gloves at all times to be used in case of emergency. Oral Benadryl (diphenhydramine) should be carried at all times wherever you go.

Work to support workplace and industry practices and government legislation that promotes the safe use of latex and non-latex alternatives. Learn more about Latex Allergy by joining these resource network and support groups:

Latex Allergy News, the information vehicle of ELASTIC (Education for Latex Allergy Support Team and Information Coalition). Telephone: 860 482-6869

Delaware Valley Latex Allergy Support Network  
Telephone: 800-Latex-NO (800 528-3966)  
[www.latex-allergy.org](http://www.latex-allergy.org)

Spina Bifida Association of America can supply an updated list of latex products and substitutes. Telephone: 800 621-3141. [www.sbba.org](http://www.sbba.org)

**LATEX ALLERGY: The Hidden Danger**

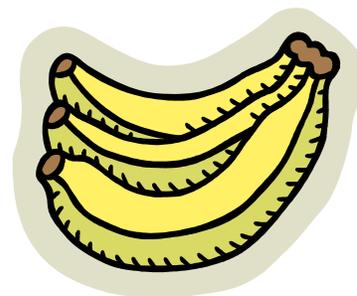
**Written by Beverly Smith, RN, M.A. & Dr. David Cohen**

**Available: [http://www.forwardface.org/misc\\_text/education/latex.htm](http://www.forwardface.org/misc_text/education/latex.htm)**

**Another good resource on Latex Allergy: <http://latexallergylinks.tripod.com/>**

## Reader Comments

The following is a response from a reader regarding the "Banana a Day Keeps the Doctor Away" Article in the Nov 03 ESOH newsletter:



"Mary, I always enjoy reading the Occupational Health Newsletter. I found the article on bananas to be especially interesting, since I have an interest in general and sports nutrition. I don't dispute that bananas are a great food (I love them!), but there were a couple of facts in the article that didn't check out. First the claim that people felt "better" after eating a banana because it contains tryptophan.

According to the websites <http://chemistry.about.com/library/weekly/aa110402a.htm> and <http://home.howstuffworks.com/question519.htm> tryptophan is an essential amino acid that the body uses to produce Niacin. Niacin, in turn, is used to produce Serotonin, a neurotransmitter that regulates sleep and can make you feel calmer. Most foods contain at least some tryptophan. The problem is that bananas contain only 0.014g per 1 medium banana. Oranges contain 0.012g, broccoli (1 cup) contains 0.026g, milk (1 cup) contains 0.112g, and one cup of roasted peanuts contains 0.369g. One does not hear that people feel happier or better after eating peanuts, which contain 26 times the tryptophan as a banana.



Under "Anemia," the claim is made that bananas are "high in iron." You'd be a lot better off eating a cup of broccoli (0.774mg), carrots (0.64mg), or even pineapple (0.574mg), as a banana contains only 0.366mg of iron. As for fiber content, bananas lose out to apples and oranges, as well as to carrots (and probably many other fruits and vegetables).

Finally, I was not able to substantiate the claim that bananas contain two times the carbohydrates as apples, five times the vitamin A and iron, or two times "other vitamins and minerals." As it stands, apples are lower in calories and higher in fiber and calcium. A cup of raw broccoli runs circles around the banana in terms of calories, protein, calcium, iron, vitamin C, thiamin, folate, and vitamin A, with nearly the same amount of fiber.

(Source: <http://www.moondragon.org/nutrition/foodguide.html>)

Bananas are handy, tasty, and easy to eat, but the fact remains that they are indeed a "high energy" food, which means that most people do not need to be eating lots of them all the time. "One a day" might be too much, especially if it takes the place of other fruits that are lower in

calories/carbs, like apples and oranges. The impression the article gave (especially referencing children eating them for breakfast, snack, and lunch) was that we should be eating multiple bananas to cure whatever ails us. All I am convinced of is that they should be part of a healthy, balanced diet rich in fresh fruits and vegetables of all kinds.

I'm not a nutritionist, just someone who tries to get all the facts before jumping on the next bandwagon. (And I will try the banana-skin-on-mosquito-bite thing!)

Thanks for the interesting newsletter!"

**Teri L. Piatt, Ph.D.**

Jacobs Sverdrup - Advanced Systems Group  
AFRL/SNAA, Bldg. 620, Phase 1  
2241 Avionics Circle  
WPAFB, OH 45443  
937-904-9199

**Thanks for the very interesting response Teri. Looks like we'd better keep putting broccoli in the grocery cart!**





## New Blood Drive Locations at AFRL:

### AFRL/VA

28 Jan, 0900-1200 Foulis Hall Bldg 146  
24 Mar, 0900-1200 Myers Hall Bldg 45  
19 May, 0900-1200 Foulis Hall Bldg 146

For more information on the VA blood drives, contact Scott Sherer,  
AFRL/VA Unit Blood Drive Coordinator at 904-4028

### AFRL/SN

21 Jan, Bldg 620, SN Auditorium 0900-1400  
Future dates: 30 Mar, 8 Jun 04  
For more information, contact Lt Dillenburger 51115 x4031

### AFRL/PR

13 Apr, 22 Jun, Bldg 18 0900-1400  
For more information, contact Bob Behdadnia 54171

## Come to the next AFRL Blood Drive:

25 Feb (rescheduled from 24 Feb!!)  
AFRL/ML (Bldg 653) Cafetorium  
and 4 May 0900-1400

Click here to see if you are **eligible to donate**:

[http://tricare.osd.mil/asbpo/donor\\_info/deferral.htm](http://tricare.osd.mil/asbpo/donor_info/deferral.htm)

Visit the **Armed Services Blood Program website** for  
more info on donating blood: <http://tricare.osd.mil/asbpo/>

Or call the Donor Center at 70580/ 71038  
or contact Mary Shelly at 255-9000



# ESOH Training



**RCRA Hazardous Waste Training**: Mandatory for all employees who generate hazardous waste. Issue Point (IP) Managers, Hazwaste generators, primary and alternate Initial Accumulation Point (IAP) managers, Unit Environmental Coordinators (UECs), and supervisors of all these individuals must take annual RCRA training.

**2004 Initial Training**: 15 Jan, 18 Mar, 20 May, 15 Jul, 16 Sep, 18 Nov  
Schedule with Susan Dilworth at 77454

**2004 Annual Refresher Training - Organizations other than AFRL**  
19 Feb, 15 Apr, 17 Jun, 19 Aug, 21 Oct, 16 Dec  
Schedule with Susan Dilworth at 77454

**2004 Annual Refresher Training - AFRL Only**  
28 Jan, 24 Mar, 26 May, 21 Jul, 22 Sep, 16 Nov  
Schedule with Mary Shelly @ 59000 or via email

## **Environmental Compliance, Assessment and Management Program (ECAMP) Training (ENV020)**

**Satellite Offerings: 17-20 May, 26-29 Jul 04**

Please contact Karen Thompson at 75899 if you are interested in taking one of these classes so she can get an estimate and determine if a satellite downlink is needed.

For class description or to sign up, go to AFIT's website:  
<http://cess.afit.af.mil/> Click on Courses > Environmental Engineering > WENV020. Info for contractor enrollment is also on the website.

This course is designed to give students knowledge to successfully plan and execute an internal or external compliance assessment (such as ECAMP), prepare required reports, and direct the follow-up actions.

For more information or if you would like to be on an ECAMP team contact Karen Thompson, 88 ABW/EMO at 75899.



## Environmental, Safety and Occupational Health (ESOH) Awareness Training

**11 Feb and 18 Aug 04** - Bldg 50, Area B

**12 May and 17 Nov** – hospital auditorium  
classes run from 0800-1200

Sign up with 88 ABW/ EM, Treva Bashore, 76391

This course covers a broad range of ESOH topics that apply to all of us at Wright-Patterson, including mandatory training requirements. This course is highly recommended for all employees on Base, including contractors. Supervisors are highly encouraged to attend.

## Unit Environmental Coordinator (UEC) Training

### Satellite Offerings:

**24-28 May 03** (closeout date 29 Apr)

**13-17 Sep 03** (closeout date 19 Aug)

Sign up through AFIT's website at <http://cess.afit.af.mil/>

Click on Environmental Engineering, then WENV220

Info for contractors to enroll is also on the website.

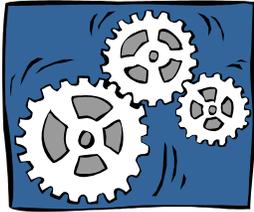
This course equips the unit environmental coordinator (UEC) to improve and maintain environmental compliance within their organization, recognize and address problems when they occur, and act as base-wide point of contact for environmental issues concerning their organization. For more info on the class: [http://cess.afit.af.mil/course\\_des.cfm?p=WENV%20220](http://cess.afit.af.mil/course_des.cfm?p=WENV%20220)



## CPR Training

Required for electrical and confined space workers per 29 CFR 1910.151. The American Heart Association recommends CPR refresher training every two years and the American Red Cross recommends CPR refresher training every year. CPR training (per the American Heart Association) is taught at the Base Hospital every Tuesday provided that there are enough students.

**Contact Marcia Wilson at 79347 or Karen Turner 48384 (Bldg 675 Area B)**



## Operational Risk Management (ORM)

To sign up, contact Chuck Swankhaus at 43390

ORM is a tool anyone can use to help with planning and decision-making in order to reduce or eliminate potential risks and increase efficiency. The Safety Office (ASC/SEG) has made two ORM briefings available over the Internet. Click on the following links to learn more about ORM:

**Awareness Level ORM Training:**

[https://www.asc.wpafb.af.mil/asc/safety/orm/exec\\_training.ppt](https://www.asc.wpafb.af.mil/asc/safety/orm/exec_training.ppt)

**Level II ORM Training:**

[https://www.asc.wpafb.af.mil/asc/safety/orm/orm\\_level\\_ii\\_training.ppt](https://www.asc.wpafb.af.mil/asc/safety/orm/orm_level_ii_training.ppt)

## 2004 Public Health Training

To sign up for training or schedule a class at your organization, please contact Public Health at 255-2515.

### Hazardous Communication (HAZCOM)

**5 Feb, 22 Apr, 22 Jul, 29 Oct 04**



This course is a Train-the-Trainer course that provides mandatory HAZCOM training to supervisors and safety reps responsible for their organization's HAZCOM program. Must have previously had general Hazcom training. Per 29 CFR 1910.1200, Hazcom training is required for all employees who use, handle, or may be exposed to hazardous materials upon initial assignment to that job (if not already receiving Chemical Hygiene Training per 29 CFR 1910.1450). HAZCOM

refresher training is required whenever a new chemical or hazardous process is introduced into the work area or it is evident an employee needs refresher training. Otherwise, there is no "annual" requirement for HAZCOM training.

### Asbestos Awareness

25 Mar, 24 Jun, 23 Sep, 9 Dec 04

### Hearing Conservation

8 Mar, 6 May, 16 Jul, 16 Sep, 11 Nov 04

### Hearing Conservation - Supervisor

12 Feb, 15 Apr, 24 Jun, 30 Sep 04

### Other PUBLIC HEALTH Training Available Upon Request:

Benzene	Cadmium
Carbon monoxide	Chemical Hygiene
Cold Stress	Ergonomics
Formaldehyde	Heat Stress
Laser Hazard	Lead
Personal Protective Equipment	Reproductive Hazards in the
Respiratory Protection	Workplace
Universal Precautions/ Bloodborne Pathogens	



## **Health and Wellness Center (HAWC) Traveling Show Hits the Road**

Looking for an informative presentation for your next commander's call, off-site, or training session? Let the Health and Wellness Center take the pressure off your scheduling worries! The HAWC has a variety of programs and classes to make your next event a hit. To schedule a presentation, all you need is at least 15 participants and the necessary audiovisual equipment, and the HAWC will come to you. At least three weeks' advance notice is requested.

### **Here are some Public Health training topics:**

#### **Stress Management**

dealing with difficult people, surviving change, surviving the holidays, resolutions....

#### **Tobacco Cessation**

tobacco use and options for quitting

#### **Nutrition**

fad diets, winning at losing, healthy eating for a healthy heart, eating on the run...

#### **Fitness**

exercise after 40, starting an exercise program, hypertension and exercise, cholesterol and exercise...

**To get the latest schedule of classes or schedule a presentation please call  
904-WELL.**

## WPAFB ESOH WEBSITES:

**ENVIRONMENTAL MANAGEMENT:** <http://www.abwem.wpafb.af.mil/em/>  
*The Office of Environmental Management (88 ABW/EM) has changed their phone numbers. For a complete listing, please see their website:*  
[https://wrigem.wpafb.af.mil/EM/staff/index.cfm?fuseaction=main&obj\\_id=93](https://wrigem.wpafb.af.mil/EM/staff/index.cfm?fuseaction=main&obj_id=93)

**SAFETY:** <https://www.asc.wpafb.af.mil/asc/safety/index.html>

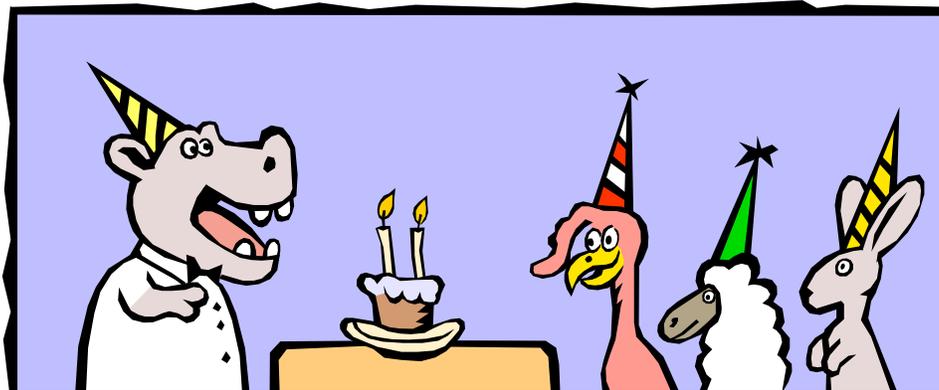
**PUBLIC HEALTH:** <https://wpmc3.wpafb.af.mil/amds/ph/index.htm>

**BIOENVIRONMENTAL ENGINEERING:** <https://www.bio.wpafb.af.mil/>

**HEALTH AND WELLNESS CENTER (HAWC):**  
<http://wpmc1.wpafb.af.mil/pages/hawc/>

**CAP OFFICE:** (6-2860) <https://www.afmc-mil.wpafb.af.mil/ESC/MM/CAP/>

**Unit Safety Reps: please post this ESOH newsletter on your safety bulletin boards.**



If you have any suggestions for this newsletter or if you would like to be added / removed from the distribution list, please contact [Mary Shelly](#) via email or at 59000.

**Happy New Year!!**