



# Haz Mat Release

THE OFFICIAL NEWSLETTER OF THE LOS ANGELES COUNTY  
FIRE DEPARTMENT HEALTH HAZARDOUS MATERIALS DIVISION



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## HOME DEPOT SETTLES CASE IN DRUM EXPLOSION INCIDENT

By Stanley Townsend

**A**lthough most people never stop to think about it, many warehouse stores routinely generate hazardous waste as a result of returned or damaged products, such as pesticides, cleaners, and pool chemicals. These wastes must be properly handled and disposed of by qualified and licensed companies to prevent environmental contamination, injuries and even fatalities.

On May 13, 2004, Slate Industrial Services, a hazardous waste disposal contractor for The Home Depot was consolidating and repackaging hazardous waste at the loading dock of the Marina Del Rey store when the waste in a 55-gallon drum began reacting and suddenly exploded into flames. Several attempts by The Home Depot employees to quench the burning drum with a fire extinguisher failed. The store was quickly evacuated, and the Los Angeles City Fire Department arrived within minutes and extinguished the fire. Unable to completely quench the reaction in the drum, firefighters moved it to an isolated area outside the loading dock where its contents continued to bubble and release gas for several hours.

The Los Angeles County Fire Department's Health Hazardous Materials Division (HHMD) Emergency Response Team arrived on scene shortly after 2:00 p.m. and conducted an assessment of the drum which was still reacting. They also conducted an air quality evaluation of the store and declared the store safe for re-occupancy at 2:30 p.m. Fortunately, no one was injured.

The HHMD Investigations Unit arrived soon thereafter and began an investigation into the cause of the incident. Investigators suspected that the cause of the reaction was the mixing of incompatible, reactive wastes in the container. The investigators began inspecting other hazardous waste drums on the contractor's trailer and found discrepancies between the labels and the contents of the drums. The trailer was quarantined pending further inspection. Over the course of the week, the entire truckload, containing 47 hazardous waste drums from several Southern California Home Depot stores, was off-loaded in the rear lot and each drum opened and inspected.



**Explosion of incompatible chemical waste caught on video in a Home Depot warehouse.**

Incompatible wastes, and wastes which were not even listed on the labels or manifests, were found in most of the drums. In addition, investigators found 46 "empty" drums in the trailer being used by the contractor to repackage the Home Depot waste that actually contained several inches of combustible paint manufacturing residue. The contractor had obtained the drums from the Sherwin-Williams paint company in Texas, where the contractor was based.

Investigators concluded that the cause of the explosion was most likely the result of a reaction between swimming pool chlorinating tablets (trichloro-s-triazinetrione) and a petroleum hydrocarbon, such as the paint-base residue found in the purportedly empty drums provided by the contractor. In addition, improper marking and labeling of waste products by employees, along with inadequate training, or employee disregard for training, appears to have contributed to the incident. The contractor who had consolidated the explosive mixture of hazardous wastes told investigators that he had not been adequately trained in handling hazardous waste.

The investigation continued over several months in coordination with California Environmental Protection Agency's Department of Toxic Substances Control (DTSC), the California Highway Patrol (CHP), the Federal EPA, FBI, and the U.S. Department of Transportation. Hazardous waste storage violations were uncovered at many of the Home Depot stores that were subsequently inspected by Health Haz Mat investigators and inspectors.

Under the direction of Health HazMat Investigators Stan Townsend and Memo Hernandez, the hazardous waste drums at the Marina Del Rey Home Depot were properly repackaged and disposed of by another hazardous waste contractor. The work was completed on May 21, 2004. As a result of this incident, the Los

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Angeles City Attorney's Office, Los Angeles District Attorney's Office, Monterey County District Attorney's Office, and the Attorney General's Office joined together with numerous Certified Unified Program Agencies, California Environmental Protection Agency, DTSC, and CHP to investigate and file civil charges for violations related to the improper handling, storage, transportation and disposal of hazardous waste generated at Home Depot stores throughout California.

In August 2007, The Home Depot agreed to a settlement totaling \$9.9 million, which included fines,

penalties, investigative costs, and funding for various hazardous waste training programs in California. Of the total fines, the HHMD received \$250,000 plus costs for initiating and referring the case to prosecutors. The Home Depot will also provide funding to the California CUPA Forum for 375 scholarships each year for the next four years, which HHMD staff will be eligible to receive. A statement released by the Home Depot said that it was "improving its handling of hazardous waste and working with State officials to address their concerns."

## **AES PLACERITA INCORPORATED SETTLES FOR \$ 15,000**

**By Darin Childers**

**A**ES Placerita Inc., a company handling a regulated substance, anhydrous ammonia, failed to report to the LA County Certified Unified Program Agency (CUPA), the ammonia release from their facility on September 2, 2006. This finding came about during a service request on October 19, 2006, to ascertain their Risk Management Plan (RMP) status. In the course of inspection, the company's monitoring capabilities for anhydrous ammonia were investigated.

During the walk-through, the Plant Operator stated that their ammonia monitor was damaged and would be installed in a few days. He explained that new manifolds were installed in May 2006 and all monitoring sensors were working with 40 ppm alarm points. However, several weeks before this inspection, an ammonia leak occurred from the packing of the new manifold triggering the activation of the sprinkler deluge system. This filled the secondary containment with up to four feet of water, thus, destroying the monitoring equipment.

The Plant Operator explained that after he repaired the leak, the deluge water was pumped out of the secondary containment to the cooling tower. No testing was provided on the deluge water for ammonia levels. He stated that no outside agency was contacted regarding this incident, and no incident investigation report was made.

On October 25, 2006, a joint inspection was conducted by HHMD's Darin Childers, Jim McCarron, Victor Nanadiego, and Dan Yniguez together with an FBI Special Agent. An interview with the owner and visual inspection of ammonia tanks were carried out.

During the interview, the owner restated his Plant Operator's story regarding the ammonia leak and how the deluge system kept the ammonia from releasing to the atmosphere. He was directed to provide the CUPA a copy of the incident investigation for this threatened release.

On October 26, 2006, a visit by Inspector Darin



**Ammonia tank inside containment with deluge system**

Childers to Ronan Engineering in Woodland Hills confirmed the damage to the X76 monitoring equipment used at AES Placerita Inc. According to the Plant Engineer, the sensors were placed too close to the relief valve and may have become saturated. Saturation of the sensor (set point 50 ppm) would explain the deluge not stopping.

On November 30, 2006, a Notice of Violation was issued to AES Placerita Inc. The violations stated that the facility did not report a release of the anhydrous ammonia tank and did not prepare a written incident notification.

Under Health and Safety Code, Sec. 25507, the handler is in violation for "failure upon discovery, to immediately report any release or threatened release of a hazardous material to the administering agency." Likewise, the California Code of Regulation, Sec. 2760.9 states that the owner or operator is in violation for "failure to investigate each incident which resulted in, or could reasonably have resulted in, a catastrophic release. An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident."

On March 14, 2007, a Notification of Potential Filing of an Administrative Enforcement Order was mailed to representatives of AES Placerita Incorporated.

On April 19, 2007, AES Placerita through its counsel settled the case for \$15,000, along with some agreed upon safety measures that will be implemented.

## BILL'S CORNER

By Division Chief Bill Jones

The Health Hazardous Materials Division (HHMD), its responsibilities, and its mandates have never ceased changing since its inception in 1981. We have continued to evolve, grow, specialize and change in the way we do business. We have seen the addition of new programs, requirements, mandates, assignments, and direction. Obviously, coming to the Fire Department in 1991 was a key event in our evolution. We now have recruits, who only know of their hazardous materials experience through the Fire Department.

Gordon Graham, an inspirational speaker at a recent annual conference, made a statement that if you are in the government and are not involved with improving how things are done, looking for new innovations and looking for how things will evolve in the future, then you are not doing your job. The HHMD has been at the forefront of innovation and new ideas for many years. HHMD has also impacted and participated in legislation that would affect our operations. Through the Unified Program Regulatory Performance Model, we have been considering an innovation that might have a substantial impact on how certain businesses are regulated in the future. The Green Chemistry Initiative, while in its primordial stages, has some exciting and potential widespread impacts on the use of certain materials in manufacturing and everyday use. We are moving away from single material legislation (for example, perchlorates) to a comprehensive re-



examination of how chemicals are used in products and manufacturing from beginning to end.

This is an exciting time, but change can be unsettling for people. In the years to come, HHMD will continue to evolve. Most notably, the Aboveground Petroleum Storage Tank program will be coming to us along with other mandates as directed by the legislation. Are we also in line to start looking at fire code violations regarding hazardous materials? This is currently being discussed at least from the perspective of providing HHMD an additional permit enforcement tool.

On the other hand, it is important to recognize that what we do on a day-to-day basis is extremely important to ensure the protection of public health and safety and the environment. Do not ever lose sight of this mission. As we evolve, we must keep in mind why we are doing our job and not sway from it.

In the upcoming months and years, we will all need to focus on that mandate as we progress. We must be flexible to incorporate those changes and I look forward to the challenging times in making that happen. Welcome on board to all and be prepared for an exciting ride!

## The 10th Annual California Unified Program Conference



The 10<sup>th</sup> Annual CUPA conference will be held at the Hyatt Regency San Francisco Airport from February 4-7, 2008. Each year, a wide range of topics are presented in this forum, led by federal, State and local experts. Aside from the discussion of emerging issues in hazardous materials and hazardous waste, one would have the opportunity to share ideas and experiences with other professionals in the field. One thing is sure, if you use your time well, you will leave the conference better informed and hopefully well connected.

For further details, check out [www.calcupa.net](http://www.calcupa.net). Our Division will be sending several HazMat Specialists to this conference on a scholarship grant.

## SPONTANEOUS COMBUSTION

By Jojo Comandante

Picture this: you've saved enough money to purchase the American Dream - a house. Then when you moved into this house with your loved ones, you realize it needs some remodeling. The hardwood floors, doors and walls need to be refinished. So you hire a contractor to make your house more pleasing and attractive. Unfortunately, after a few days, your dream home is caught in a fire that could have been prevented.

A few months ago, the HHMD Emergency Response Team was called to a roll-off bin fire in the Malibu Hills. The roll-off bin was completely engulfed in flames and the adjacent eucalyptus trees were beginning to burn. Luckily this home was some 200 feet away from the bin, and because of the swift response of LACoFD Engine Company 71, the fire was contained.

Upon investigation, the Emergency Response Team found paint cans and some contaminated rags in the roll-off bin, together with construction debris, such as wood, plastics, and carpet materials. An open container of contaminated rags was also nearby. The incident occurred on a warm Sunday and there was no evidence of any possible source of ignition except for spontaneous combustion. This chemical reaction can occur when



there is oxygen, heat and fuel.

Spontaneous combustion occurs without any extraneous source of ignition. It can occur when oily rags, solvent waste rags, shavings, paint waste, and other materials become heated and emit vapors by a slow oxidation process. The chemical reaction creates heat at the molecular level raising the inside temperature of a substrate (a pile of rags contaminated with oils, volatile organic compounds, urethane dust/scrapings, alkyd enamel resins, used paints, compost piles, etc.) to the degree at which a fire could start.

If only used rags are laid out individually over a large area to dry, there is less chance of ignition because the heat is dissipated. Also, if used rags are stored in a closed container, the oxygen needed for oxidation is not present to sustain a fire.

When remodeling your home or hiring a painting contractor, make sure they follow proper storage of materials subject to spontaneous combustion. Remember, it's better to be safe than sorry.

## CARBON MONOXIDE— A DEADLY GAS

By Alfonso Berumen



On March 30, 2006 at approximately 5:15 p.m., Alfonso Berumen and Milo Gonzalez of the Health Hazardous Materials Division Emergency Response Team, were dispatched to a residence near Castaic Lake. LACoFD Engine 149 was at a residence with Los Angeles County Sheriff's Deputies where two fatalities had occurred. Relatives had not heard from the two victims and had requested that the authorities check on them. The two victims were found dead upon arrival and were suspected of having succumbed to carbon monoxide poisoning.

The Gas Company verified the source of the fatal levels of the colorless, odorless, carbon monoxide gas was the residential heating unit, which was not properly vented. Although it did not appear intentional, the venting system for the gas heater was compromised. The Gas Company shut down the source of the carbon monoxide at the gas heating unit and the residence was ventilated. This action rendered the atmosphere in the residence safe.

Generally, there are several reasons a gas appliance venting system is not functioning properly. Primarily, it is caused by a physical blockage of the vent. Typical vent blockages include a bird's nest at the top of the vent, a failure to clean the vent opening and roof repairs where the vent was covered or not connected. Once the vent is blocked, carbon monoxide accumulates inside the house exceeding the OSHA long term exposure limit of 35 parts per million (100 ppm). At concentrations of less than 100 ppm, mild poisoning may occur resulting in symptoms such as dizziness and headaches. At 1600 ppm or higher, a person's blood is unable to carry oxygen throughout the body which, if not corrected immediately, may lead to death.

Carbon monoxide poisoning in a residence is preventable by conducting a regular check and maintenance of all gas appliances and its vents. Installation of carbon monoxide alarms are also strongly recommended.

In an industrial setting, observance of safety measures such as adequate ventilation, regular preventive maintenance of diesel or gasoline powered machinery, and obeying safety instructions will contain carbon monoxide at acceptable levels.

Taking these precautionary measures can prevent a tragedy from occurring at your residence or workplace.

# WHAT IS ENVISION CONNECT?

By Lance Ralston



Some people may be curious about the latest version of Envision called “Envision Connect.” This latest change of the Envision database is web based and will completely revolutionize the look, feel, and functionality of the database. Some agencies have already migrated to the new version and they love it. It is much more intuitive and makes various tasks much easier to accomplish. It will also facilitate the set-up and use new and better ways to conduct business.

With the web becoming more pervasive and with the tools now available to develop web-based applications, Decade Software decided to make the leap to a web-based version of Envision. They put together a development team and began building the product. They wanted the product to be more intuitive and user friendly such that all those large cumbersome user manuals would not be necessary. They wanted the product to be much more customizable by the agency and the individual so that each workflow user would only see the fields and steps necessary to complete that particular assignment. The current version of Envision Connect does indeed accomplish these goals.

During the development process, Decade Software held and continues to hold regular web-based interactive sessions with any agency that wants to participate. These sessions review a particular aspect of Envision Connect and ask for agency input into the development process. Agencies can make suggestions for changes that would improve the screens, process, functionality or workflows being reviewed. The result has been a much higher level agency involvement in the

development of the product than ever before. The product is much better as a result.

When will we see Envision Connect? Well, first, several things need to be accomplished. First, an upgrade process will need to occur to install version 3.4. Next, the server hosting Envision will also need to be upgraded to SQL Server 2005. This Microsoft software operates the server and its functions are used by Envision for Windows 3.4 and Envision Connect. Now the upgrade process needs to be performed after all the billing is completed for FY 2007-08, including the billing aging processes. The current plan is to complete this upgrade process at the end of FY 2007-08, around June 2008.

Another key component is the renegotiation of our contract with Decade Software. This will probably occur in the April-May 2008 time frame. The negotiation will also cover the adoption of another new Envision product called Envision Portal. This enhancement is the result of a partnership between Decade Software and a company called E-Compliance.

E-Compliance has developed a product to allow regulated businesses to submit business plan information, such as chemical inventories, to the agency electronically through the web. The Portal will allow all kinds of electronic regulated business submissions and communications. Unified Program applications, bill payments, annual notifications, etc., can all be done over the web.

Once all these steps are accomplished, the transition to Envision Connect can occur.

The security levels and groups will need to be established, the initial configuration completed, and the individual workflows identified and

set-up. Each home page is configurable so that you will only see the fields necessary to accomplish your task. And the fields can appear in the order that best suits the way you work.

Envision Connect will also greatly facilitate the deployment of a field inspection system. Laptop or tablet PCs can be used by inspectors in the field and a remote card can access Envision through the web. You can do real time review of information in the database and real time updates from the field, including completing your time and activity reports. Life will be so much easier!

## TENTATIVE TIMELINE :

TASK	ESTIMATED DATE
Complete FY 2007-08 Billing	May 2008
Renegotiate Decade Contract	May 2008
Test Envision (Env) Upgrades	May-June 2008
Upgrade Server to SQL	June-July 2008
Install Envision Upgrades	June-July 2008
Identify and Configure Workflows	July-Aug 2008
Test Envision Connect	July-Aug 2008
Train Staff on Use of Env Connect	Sept. 2008
Deploy Prod. Ver. of Env Connect	Sept-Oct.2008
Test Env Portal (E-Compliance)	Sept-Oct.2008
Deploy Env Portal (E-Compliance)	January 2009
Research Equipment For Field Inspection System	Nov. 2008
Prepare Budget Request for FIS Proposal	Dec. 2008
Purchase Equipment for FIS	July 2009
Test/ Pilot FIS	Sept. 2009
Deploy full FIS	January2010

## LOCAL CONTROL FOR THE AST PROGRAM



By Lance Ralston

**AB 1130** has been signed into law and will transfer the Aboveground Petroleum Storage Tank (AST) program to the local Certified Unified Program Agencies (CUPAs), effective January 1, 2008. Two workgroups have been established to work on implementation aspects of this transfer. One workgroup deals with administrative details of the transfer including program funding for first two years of implementation; the other workgroup deals with training requirements. Although the State has been collecting money from biennial fees on regulated AST businesses, AST inspections have not been conducted by the Regional Water Quality Control Boards (RWQCB) since 2002.

AB1130 places a moratorium on the implementation of fees by the local CUPAs until January 2010. To cover the implementation costs for the first two years, each CUPA will apply to the State (California Environmental Protection Agency) for grant funding. Monies accrued in the Environmental Protection Trust Fund (Fund) approximately \$8 million will be used to cover the grants. A distribution formula has been determined based on the number of AST facilities and their tank sizes located within each CUPA. According to State records, LA County CUPA has about 345 AST facilities, ranging in size from less than 10,000 gallons in aggregate capacity to over 100,000,000 gallons. Under the proposed formula, the LA County CUPA could apply for grant

funding in the amount of \$340,000 to cover the first two years of implementation. The State's biennial fees were based on the aggregate capacity for each AST facility. There are six fee categories. Program elements (PE 3701-3706) have been added to Envision to represent each of these fee categories.

For the majority of our AST sites, the proper total capacity has not been determined and the bulk of facilities have a 3700 program element, representing an unknown fee category. When conducting inspections, inspectors are asked to update the facility record with the proper PE, reflecting the total capacity at that AST site.

The State will also develop and deliver a training module for inspectors which will occur at various locations throughout the State in the summer of 2008. Although any facility with an aggregate capacity of at least 1320 gallons is subject to the program, routine inspections are only required at facilities with at least 10,000 gallons. The State will also be working on reporting requirements for the new local program. AST reporting elements will be included in annual reports to be submitted to Cal-EPA. Prior to AB1130, the CUPA inspectors were only required to verify the existence of a Spill Prevention Control and Countermeasure plan and refer non-compliant facilities to the RWQCB. Now, local CUPAs are responsible to take enforcement actions against non-compliant facilities.

### SIX FEE CATEGORIES

- 1) <10,000 gallons
- 2) >10,000 & <100,000 gallons
- 3) >100,000 & <1,000,000 gallons
- 4) >1,000,000 & <10,000,000 gallons
- 5) >10,000,000 & <100,000,000 gallons
- 6) >100,000,000 gallons

## Property Owners Beware!!!

By Jojo Comandante



**AB 1078** known as the Methamphetamine Contaminated Property Clean up Act of 2005, was chaptered into law (Health and Safety Code, Sections 25400.10) January 1, 2007. This law requires health officers to ensure that residential properties known to have been the site of illegal methamphetamine manufacture to be cleaned up to specific standards. Liens will be placed against the property and will not be removed until the health officer is satisfied with the cleanup and the liens are paid. Property owners will be responsible for all cleaning costs.

A two-bedroom single family dwelling in South Central Los Angeles was a case in point. The property owners rented it and later determined that the tenants had been manufacturing methamphetamine in one of the bedrooms and were venting the hazardous fumes into the attic. The

house was contaminated and had to be cleaned up. Wipe samples were taken at various locations to identify areas of contamination. Bulk furniture and appliances had to be disposed of and removed from the house, including bedroom sets, TV's, refrigerator, sofas, and tables. All the

walls and the ceiling had to be decontaminated three times and coated with a special paint to ensure total encapsulation of contaminants. The attic had to be cleared of all the insulation. It took more than four days of clean up before the final wipe samples showed levels that are within the State standards. The homeowner paid more than \$20,000.00 for the cleanup.

SB 536 was also enacted and requires Department of Toxic Substances and Control to develop health-based target remediation standards for methamphetamine, iodine, methyl iodide and phosphine. As of October 2007, DTSC has developed a draft remediation standard for methamphetamine. Public workshops will be held in early 2008 to solicit public comment. So property owners beware, without a thorough background check of your tenants, renting your house to a stranger may cost you a lot of trouble and money.

## NEW BUSINESS PROJECT

By Jeovani Stoute

The New Business Project (NBP) for government facilities was initiated to identify and charge permit fees for all applicable facilities that handle hazardous materials or generate hazardous waste.

Government entities have long been granted “exempt” status for Hazardous Materials/Hazardous Waste fees. As such, no concerted efforts had been made to identify and permit all government facilities.

Government facilities are not exempt from hazardous waste requirements and legislation (AB 1640 Laird) clarified inclusion of local government entities under Hazardous Materials requirements.

Combined efforts were made during the last four years to identify and permit government facilities located within the Los Angeles County jurisdiction, including the City of Los Angeles, County unincorporated areas, incorporated cities, State and federal facilities. These efforts are now complete.

Investigation revealed that many of these facilities handle hazardous materials and/or generate hazardous waste from public work yards, vehicle maintenance



**A Federal facility handling hazardous materials and generating hazardous waste.**

facilities, storage facilities, clinics, parks and recreation yards and similar facilities. Office research and site visits were also used as tools to identify these facilities.

During the course of this project, 652 new sites were added to the system. The total number of government facilities for the NBP is 1,830 sites.

With the increasing numbers of facilities falling under our jurisdiction, the importance of our role as the protector of public health and the environment is more evident and more profound than ever.

## LA COUNTY FIRE IS GOING GREEN

By Bruce Wojcik

In 2005, the County Board of Supervisors voted for departments to begin replacing older gasoline powered non-emergency vehicles with clean fuel gasoline/electric powered (hybrid) vehicles. HHMD has begun the transition to the new hybrid vehicle by currently purchasing ten 2007 Toyota Prius vehicles.

The transition to hybrid vehicles will help curb air pollution by reducing greenhouse gas emissions and cut costs on gasoline consumption. Over the course of five years, the cost of operating a hybrid vehicle is \$8,000 less than a standard gasoline powered vehicle. The Toyota Prius is the most fuel efficient car sold in the U.S., with a combined average city and highway fuel economy of 46 mpg. Hybrid vehicles combine the internal combustion engine of a conventional vehicle with the battery and electric motor of an electric vehicle and attain twice the fuel economy of conventional vehicles.



**Toyota Prius 2007 Model assigned to HHMD**

At present, our Division is determining the fuel efficiency of the Prius by monitoring its mileage and gas consumption every month. Hopefully, with the rising cost of gas and the environmental effects of smog emissions, more of our old vehicles will eventually be replaced by hybrids.

## CLANDESTINE ECSTASY LABS

By Tom Provost

**MDMA**(3,4-methylenedioxy-Nmethylamphetamine), known as Ecstasy, (E, X, or XTC) is a psychedelic amphetamine which acts as a stimulant and a hallucinogen. The illegal drug is sold mainly as pills at raves and underground clubs. Most MDMA sold in the United States is imported by Israeli and Russian mafias from labs in Europe or by Chinese mafias from labs in Canada. It is rare for the LA Impact LAPD/LASD task force or DEA to seize clandestine Ecstasy labs in LA County. In November 2005, the Emergency Operation Section (EOS) of Health Hazmat Division (HHMD) of the LA County Fire Department was involved in a lab seizure in Azusa which was one of the 18 MDMA labs raided in the U.S. in that year. This lab was operated by organized crime where automatic weapons and explosives were found at the location. In 2007, Hazardous Materials Specialist II Tom Provost and Don Thompson of EOS, responded to two calls involving Ecstasy labs, one in Cerritos and the other in Woodland Hills. The incidents received media coverage by KTLA TV Channel 5 and Fox TV Channel 11. Both labs operated out of house garages in upper middle class residential neighborhoods without arousing any suspicion. Both suspects had college inorganic and organic chemistry backgrounds needed to manufacture MDMA as well as access to industrial chemicals, glassware, and personal protective equipment. However, neither was involved with organized crime.

A variety of hazardous chemicals were found at both labs including flammable solvents (benzene, formaldehyde, methyl styrene, etc.), chlorinated solvents (chloroform etc.), inorganic acids (sulfuric acid etc.), organic acids (formic acid etc.), bases (ammonia, sodium hydroxide etc.), mercury, and reactive materials like hydrogen peroxide, hexamine, red phosphorus etc.

**Health and safety concerns for First Responders at Ecstasy labs include:**

**Explosion hazards.** There is a potential for explosions and the possibility that the lab operator has made and left peroxide-based explosives for law enforcement. It is recommended that a sample of white or brown solids be tested for explosives before handling. The finding of peroxide-based explosive would require Bomb Squad response.

**Flammable and toxic atmospheres.** Law enforcement will use Level B Personal Protection Equipment (PPE) for initial entries, do confined space air monitoring for combustible gases, carbon monoxide, oxygen, and phosphine gas, and ventilate indoor locations to allow for Level C PPE and eventual entry



Ecstasy Lab operating in a house garage.

without respiratory protection. pH indicator paper could be attached to PPE to detect any acidic or caustic environments. Ammonia and Chlorine detectors should also be used.

**Mercury spills.** Hazardous Materials Specialists can provide support by surveying the scene for mercury spills using mercury spill kits. Immediately Dangerous to Life and Health (IDLH) air level concentration above 10mg/m<sup>3</sup> of mercury would require continued use of Level B PPE.

**Health and Safety and environmental concerns for the community include:**

**Explosions and fires.** There is the potential for explosions from unstable shock sensitive peroxide explosives found at the scene. During cleanup activities, Cal-EPA DTSC-hired Hazardous Waste cleanup contractors must be monitored to assure safe handling of wastes. Mixing incompatible wastes or placing wastes in incompatible containers can create explosive mixtures. Hazardous waste must be lab packed per Department of Transportation requirements to prevent transportation accidents.

**Toxic air releases.** There is the potential that acutely toxic gases including phosphine, chlorine, and ammonia may be released into the neighborhood during the operation, seizure, and cleanup of the lab.

**Environmental contamination.** There is the potential for both onsite and offsite contamination. Contamination could occur before or during lab seizure and cleanup. Onsite contamination from the lab's operation could include semi-volatile organic solvent spills and reaction residues, corrosive spills and chemical residues from drug syntheses, spills of reactive and ignitable materials including phosphorus and concentrated hydrogen peroxide, and mercury spill

Hazardous Materials Specialists act as both the Environmental Health Officer and Technical Reference at the incident. They monitor the incident scene during the Emergency Response and Post-Emergency Response to assure releases do not occur and the cleanup is completed safely. They can communicate health risks to the community and media who may ask questions about the incident. (References: DEA, UN, Wikipedia and CAMEO)



## spotlight on health

By Dan Zenarosa

# W

alking is the best medicine. These words were once

spoken by Hippocrates, an ancient Greek physician, who is referred to as the Father of Medicine. His statement is particularly true today since our lifestyles have changed dramatically with new technologies, our over dependence on vehicles, lack of recreation and a fast paced work schedule that leaves little room for exercise.

The American Heart Association declared physical inactivity as one of the risk factors for the development of cardiovascular diseases together with high blood pressure, high blood cholesterol, smoking, overweight and diabetes.

Workers who find themselves spending a great deal of time in the office should incorporate regular exercise into their daily routine. Regular physical activity like walking has been found through clinical studies to reduce the risk for diabetes, colon cancer, osteoporosis, coronary heart disease and stroke. It lowers blood pressure, reduces blood cholesterol level, reduces stress and depression, decreases body fat and weight, and increases bone density and flexibility of joints

Knowing these benefits, how can we schedule physical activity while still having a productive working day in the office? The answer is to be creative and to use all available opportunities in the workplace. For example, lunch and breaks, are perfect times to get out for some fresh air and to do some walking. If you are not used to walking alone, invite your office mates or friends to join you. Make it fun. The distance from the back door of our office to around Alexander Street, Slauson Avenue, Zambrano Street and back to the office is about one mile. Two break time walks burn about 224 calories. This amount may not seem a lot, but if you



walked five days a week for one year, you would burn over 69,360 calories. Not bad, considering that other calories that you burn from the rest of your daily activities are not even included!

By being creative, you will find other occasions to increase your physical activity, like parking your car farther and then walking the rest of the way to the office or to the facility that you would be inspecting. Likewise, take the stairs instead of the elevator whenever possible. Take a few minutes to stretch your arms, neck and shoulders when working at the computer.

Walk around the office and stretch those legs from time to time and do some resistance exercises while waiting for your documents to be printed at the copying machine.

A study by Jim McKenna from the University of Bristol showed that "exercise during workday improves job performance" through better time management and improved mental sharpness of the participants.

If you want to do other forms of exercises like swimming, running on a treadmill, riding a stationary bike, and weight lifting, then you could enroll at the City of Commerce Aquatorium, which has two heated indoor swimming pools and two physical fitness rooms. The Aquatorium is located at 5600 Harbor Street, just 6 blocks away from our office. You have to be a resident or a worker in this city to use their facilities. A letter from your supervisor certifying your employment within the City of Commerce is required. If you are at LAO Headquarters, there is the Paul Donohue Fitness Center, which is a fully equipped gymnasium and is open from 5:00 a.m. to 5:00 p.m. If you have a key card, you can access the gym at any time.

There are countless ways to be healthy and to be physically fit. The more motivated we are, the more vigorous and consistent our exercise will be. Eventually, each one of us will have to find out what would motivate us to continue. In the end, we will realize that everyone, especially our loved ones, will be happy and grateful that we are still around enjoying this wonderful life with them. Here's to Health and to Hippocrates for his timeless advice!

## MRSA—THE SUPERBUG

**MRSA** (Methicillin Resistant Staphylococcus Aureus)—belongs to a large group of bacteria that is commonly carried on the skin or in the nose of healthy people. This bacterium is one of the most common causes of skin infections such as pimples and boils, in the United States. It can also cause serious surgical wound infections, blood stream infections (sepsis), and pneumonia. MRSA is a type of staphylococcus that is resistant to common antibiotics such as oxacillin, penicillin, and amoxicillin.

The Center for Disease Control and Prevention estimates that about 12% of MRSA infections are now community associated. That means, we can get it anywhere. In our interaction with the public, we have to protect ourselves by practicing good hygiene. Hands should be kept clean by frequent washings with soap or use hand gloves when necessary. If we have wounds, such as abrasions or cuts, they should be covered with a clean dry bandage until healed. We cannot emphasize enough the importance of heightened awareness in preventing the spread of MRSA.

### MRSA IS EVERYWHERE



## LESSONS LEARNED-- Ammonia

By Teresa Quiaoit

**A**mmonia is a chemical that can do wonders and has a host of beneficial uses. It is used as a refrigerant, in the production of fertilizers and explosives and in the synthesis of organo-nitrogen compounds. However, ammonia also has inherent danger associated with it and can be fatal when inhaled. It can also be explosive at concentrations between 16 percent and 25 percent. If this gas is accidentally released, the result may be catastrophic. Releases of ammonia have the potential for harmful effects on workers, the public, and the environment.

The main objective of the California Accidental Release Prevention (CalARP) Program is to prevent releases of toxic chemicals, such as ammonia, by implementing a prevention program that includes safety precautions, mechanical integrity, and employee training.

There have been three major ammonia incidents this year in this Department's jurisdiction. One happened in a local ice-making plant where the entire ammonia inventory was released to the brine tank. Human error was the key factor in the accident. The ice can operator failed to inspect the alignment of the ice cans prior to submerging them into the brine tank. Consequently, the ice cans severed an ammonia pipe, releasing the entire amount of ammonia into the brine water. In the ensuing investigation, although a written operating procedure was in place, it was determined that the operator had inadequate training, which led to the accidental release. The ammonia system was red tagged and stopped operating until all the violations were corrected. The directives included providing protective barriers on the ammonia pipes, adequate training of ice can operators, additional ammonia sensors, providing an isolation mechanism in the ammonia refrigeration system, and submitting a Risk Management Plan. Implementation of a Prevention



Monitoring Ammonia level inside an ice making plant

Program is paramount in preventing future ammonia releases.

In the other two incidents at a chemical plant and ice cream facility, the cause of the ammonia release was built up pressure in the ammonia vessels, thus venting the toxic gas through pressure relief valves. Fortunately, both facilities have their pressure relief valves connected to a water dilution tank to absorb ammonia, thus preventing a catastrophic direct release to the atmosphere. The chemical plant lost its entire quantity of ammonia to the water dilution tank. An aggressive maintenance schedule is a pivotal element in the prevention programs. Pressure relief valves are required to be replaced every 5 years or sooner depending on the usage and manufacturer's recommendation. The ice cream facility failed to implement its mechanical integrity program. There was a lack of documentation to prove the valves and vessel controller are maintained and replaced accordingly. Due to lack of training and written procedures, an employee opened the valve on the water dilution tank and released ammonia-contaminated water onto the street. This facility was directed to do the clean-up and ensure that contaminated water is not discharged into the storm drain. Notices to Comply were issued to both facilities.

Although ammonia can cause serious harm, facilities can mitigate the risks by providing education on the necessity of a Risk Management Program. It is supremely important to have all levels of the company make a total commitment in the implementation of the prevention program. After all, an ounce of prevention is better than a pound of cure.

## GREEN CHEMISTRY INITIATIVE

Recent news headlines have exposed toxic chemicals in toys, pet foods, jewelry, clothing, and other items being sold to the public. The uproar led to product recalls, strict government oversight on local manufacturers and closer monitoring of imported goods.

The California Green Chemistry Initiative was launched by the California Environmental Protection Agency (Cal-EPA) Secretary Linda Adams, in response to Governor Arnold Schwarzenegger's call to reduce the consumers' risks from toxic chemicals and waste. Green Chemistry is fundamentally a new approach to environmental and public health protection, transitioning away from the "cradle to grave" concept of managing toxic chemicals, to the new "cradle to cradle" approach through product design and industrial innovations. Cal EPA Secretary Linda Adams has designated the Department of Toxic Substances Control Director Maureen Gorsen, to lead the development of Green Chemistry Initiative. It is expected that a final Cal-EPA Green Chemistry Policy recommendation will be available by July 1, 2008. To learn more about new developments, go to [Green.Chemistry@dtsc.ca.gov](mailto:Green.Chemistry@dtsc.ca.gov).



# ISLAND INCIDENT-DAMAGE ASSESSMENT

By **Mario Tresieras**

A wildland fire, the Island Incident, was reported on Catalina Island on May 10, 2007. Two Damage Inspection teams (DINS) consisting of Hazardous Materials Specialists Mashid Harrell, Milton Molina, Gerhard Trippel, and Darin Childers, and Unit Leader Mario Tresieras from HHMD, were subsequently activated and issued orders to be ferried to the island via the Catalina Express.

Logistically, this endeavor was extremely demanding. The island presented many challenges especially for fire fighters. The Avalon Fire Department Chief and the Los Angeles County Fire Department have been commended for the immediate activation of resources that literally saved the City of Avalon. Only one home was destroyed in the incident.

Our teams were assigned to the Situation/Status Unit (Sit/Stat) and their support was outstanding. They were generous in lending us their state of the art GPS, which allowed us to take longitude/latitude readings as well as way points to be plotted on a map to indicate the damaged locations. The City of Avalon provided us with their office cubicles, computers, phones etc. to accommodate our needs. We were very lucky to obtain two city vehicles so we could conduct our damage inspections in the island. One of our teams hitched a ride with the harbor master and took a boat out to the other side of the island to assess damage at various camp grounds. Our teams did a thorough job obtaining the necessary data and documenting and photographing the

damage caused by the fire. We also captured indirect damage which was especially useful to the Fire Department and may have an impact on future documentation needed at these events.

Our defining moment came from HMS III Gerhard Trippel recommending the activation of the Emergency Operations Section's Emergency Response (ER) team after identifying hazardous

materials requiring attention at some of the burned businesses. As a result of this, we were able to have an ER team activated as part of the incident. Many sites were identified as contaminated and clean up was overseen by our ER unit. Our teams often worked 16 hour

days in order to compile the report write up. Ultimately, we finished our report on time. We presented a residential loss prevention analysis where 479 structures (valued at \$475 millions) were saved. We received tremendous feedback from the individuals we worked with, as well as a special proclamation by the City Council of the City of Avalon honoring the efforts of Damage Assessment - Health Haz Mat Teams.

The Fire Department's demobilization was a truly memorable experience. It was as if the entire city had come out to say thank you! Upon stepping into the boat, the crowd began to roar and we received high fives, shell necklaces and hugs from a city that was truly grateful to still be standing. The positive energy in the air was something that anyone who participated in this event could never forget. The resources, team effort, and dedication of all of the staff make it truly amazing to be part of such an incredible organization as our Los Angeles County Fire department.



Destroyed family home on Quail Canyon Road, Catalina

## DAMAGE INSPECTIONS (DINS)

The damage assessment project started in 2002 and was coordinated by Inspection Section Manager, Jerry Munoz. Initially, 35 volunteers were trained in Damage Assessments in addition to ICS 200, Fire Behavior, and Shelter Classes. Since then, the teams have conducted damage assessments at county fires like the Catalina Island Incident, Fairmont Incident, Buckweed Incident and the Malibu Incident to name a few.

The DINS teams conduct damage inspections, take photographs and GPS coordinates, and document the information for use by the incident commander. As hazardous materials specialists, our teams also identify any haz-mat concerns and have on several occasions called for Emergency Operations response teams to assess imminent hazards. All of the field observations are recorded and compiled into comprehensive damage inspection reports. In the upcoming months, training will be provided to expand our DINS resources and formalization of the process is underway. For further information, contact Jerry Munoz or Fernando Florez of the Inspection Section.



# WELCOME TO OUR NEW STAFF

## NEW INSPECTORS

The new hires started training last October 15, 2007 and will continue until December 7, 2007. The names of the seven new trainees are from left to right: James Perukkonil, Solomon Brodsky, Ellen Ruelas, Amanda Liu, Alexander Ng, Stanton Uyehara and Gary To. All of them came from LA County Environmental Health under the Department of Public Health. Upon completion of their training, they will be assigned to the different offices of the Inspection Section.



At right: Memo Hernandez, Stanley Townsend, and Gerhard Trippel from the Investigation Unit, training the new hires on the proper technique of sampling hazardous materials and hazardous waste.



## CLERICAL STAFF AND STUDENT WORKERS



The new clerical staff in the Administration and Planning Section are, from left to right: Claudia Marin, Arlene Santos, Cindy Nguy, Martha Morales, Lin Chau, Julissa Garcia, and Kimberly Walton.



Five additional staff were hired as Student Workers. From left to right: David Santana, Alex Contreras, Courtney Williams, Claudia Rojas, Miya Buckley, and Ricky Rios.



**Bill Jones**  
Chief  
Health Hazardous  
Materials Division

Haz Mat Release is an effort to foster an exchange of information. We welcome any questions or comments.

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