

## CALIFORNIA FIRE CODE TRAINING

By Ken Smith

Health Hazardous Materials Division (HHMD) is now authorized to enforce the Los Angeles County Fire Code (FC). Deputy Chief Scott Poster requested Chief Bill Jones to evaluate the feasibility of HHMD inspectors incorporating components of the FC into routine inspections. After going on inspections with a Hazardous Materials Specialists (HMS), Chief Poster recognized similarities and perhaps duplications within the inspections of Fire Prevention Division (FPD) and HHMD personnel. A pilot study between the Petroleum Chemical Unit, Carson Regional Unit and HHMD concluded that there was some overlap in the hazardous materials portion of FC Chapter 27.

Ernie Hernandez, HMS II of Southeast District office, conducted the FC training on August 6 and 13, 2009 for all HHMD staff. FC inspections by HHMD personnel will be conducted in the jurisdictions where the Department has fire safety responsibilities. In addition, FC inspections will be performed in conjunction with CUPA-related program inspections and also with emergency response activities. We are expecting to launch the program soon.

The most exciting component of this inspection process is that, it will allow HHMD to resume a more active role in connecting with FPD Units and fire stations. In addition, HHMD Fire Inspection and Enforcement Policy (VF-C3-S11) was developed to provide an interface between the Fire Prevention Policy (Volume 7-C2-S4) by creating a procedure for processing referrals and inspection reports to FPD Units and fire stations.

Indeed, HHMD is moving ahead to meet its new challenges and responsibilities. □



Supervisor Ken Smith and HMS Inspector Ernie Hernandez conducting the FC training.



## NEW EMPLOYEES



Melissa Lambert is the new Senior Typist Clerk of Data Ops and Judith Leslie-Thomas is the new Support Staff for Admin and Planning. Welcome to our Division!



**Bill Jones**  
Chief  
Health Hazardous  
Materials Division

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

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## Haz Mat Release

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FIRE DEPARTMENT HEALTH HAZARDOUS MATERIALS DIVISION



Volume 6

## THINGS ARE NOT ALWAYS AS THEY SEEM

By Walter Uroff

Every day local agencies respond to incidents that appear on the surface to be routine. Sometimes these incidents go from routine to bad, such as a routine garage fire turning out to be an illicit drug lab. The following incident is a good example of how a routine incident can change to a dangerous one and how an incident that is safely mitigated can leave unanswered questions.

Late last year, the Emergency Operations Section (EOS) received a request to respond to a suspicious chemical laboratory being operated in a condominium unit in San Pedro. The Emergency Response Coordinator dispatched one EOS team consisting of Hazardous Materials Specialists (HMS) Mike Uyehara and Mario Benjamin, Supervising HMS Phil Kani, and EOS Manager Walter Uroff.

When the EOS team arrived on scene, Los Angeles (LA) City Fire Department explained that they had responded to a call of water running from under the front door of the condominium unit and that the owner was out of town. Upon entry, they followed the water straight to the bathroom to find an overflowing toilet. After shutting off the water, they noticed several bottles of chemicals all over the unit. They also discovered what looked like some type of explosive device near the back patio door. At this point, the firefighters backed out of the unit, evacuated several hundred residents from the building, and called Los Angeles Police Department (LAPD) bomb squad, LAPD Haz Mat, LA City Fire Haz Mat, the FBI and the LACoFD Health Haz Mat (HHMD) for back-up. During the briefing, it was decided that LAPD Haz Mat would make the first entry into the unit to conduct the initial assessment. Upon entering, they found various flammable chemicals, powders, a microscope, an autoclave, chromatography machines, and a device made from bricks, aluminum foil and electrical wires. The device looked similar to an explosive device but upon closer examination, it appeared to be improvised heating equipment. The initial survey confirmed a lab setup in the condo but the type could not be determined.

After LAPD completed their initial assessment, they reported no biological agent or explosive device and that it would be safe to enter the unit. It was then decided that LAPD Haz Mat, LA City Fire Haz Mat and HHMD would do a more detailed assessment. Meanwhile, it was learned



that the occupant was a chemist who was out of the country visiting Iran.

Inspection revealed various flammable liquids, such as methanol, acetonitrile, 2-propanol diethylbenzene and many other chemicals stored in a glass enclosed fireplace. Other non-compatible chemicals, such as acetic acid and ammonium hydroxide, were stored on shelves and in various closets throughout the unit. The bookshelves were filled with chemistry books, instructions for making aerosols, and books about Stalin and communism. At this point, suspicions about terrorist activities began to surface. The microscope and the autoclave suggested the possibility that bio-agents may be involved, yet there were no Petri dishes, agars or incubators. To help confirm this, a LAPD reserve officer, who is also a chemistry professor at Cal State University Northridge, was brought in. The professor concluded that the occupant was making chromatography columns that could be sold to various companies. At this point, the law enforcement agencies were convinced that the lab was probably legitimate, and turned the incident over to LA City Fire and HHMD, who agreed that storing these chemicals in the condominium was an imminent risk to the entire complex and that the chemicals had to be removed. LA City Fire cited the condominium association and HHMD worked with the association representative to hire a hazardous materials company to remove the chemicals. Weeks later, our EOS team leader followed up with the association representative, who explained that the occupant had returned, disposed of the chemicals and suddenly decided to return to Iran to live there.

Although this lab was written off as legitimate by local authorities and all the hazards safely removed, some questions remained. For one, the occupant was never questioned by local authorities and whatever he was producing was never actually determined. What is important to note is that a simple routine incident can very quickly turn into something unexpected and dangerous. Whatever the circumstances, all incidents should be approached with caution, and all safety procedures should be followed. □

## HHMD CELEBRATES 100+ AEOs

By John Vincent

A special meeting was held on May 20, 2009, to celebrate the filing of 100 Administrative Enforcement Orders (AEO) by Health Hazardous Materials Division (HHMD) staff. AEO is provided in section 25404.1.1 of the Health and Safety Code, which authorizes the Los Angeles County Fire Department as the Certified Unified Program Agency, to issue AEOs and penalties to those who violate the Hazardous Waste and Hazardous Materials Regulatory Programs. This milestone was achieved through the diligence and hard work of over 35 Hazardous Materials Specialists. A meeting was held to recognize and acknowledge the efforts of these individuals.

To date, nearly 85 percent of AEOs initiated have been settled through negotiations and resulted in the collection of settlement money from penalties and costs. However, of greater significance is the establishment of AEOs as an effective enforcement option in obtaining compliance. These AEOs are only for the more serious Class I violation or recalcitrant violators.

The remaining 15 percent of AEOs pose unique challenges and rely on the concerted efforts of the Investigations Unit for resolution. HHMD currently has three AEOs scheduled for Office of Administrative Hearings (OAH), four AEOs awaiting conversion to civil judgments for failing to respond, and five AEOs have



been cancelled due to the inability to locate the respondent or insufficient evidence.

HHMD has presented two cases before the OAH and prevailed in both. The first case involved failure to pay permit fees and the second for hazmat/hazwaste violations, which resulted in the respondent being ordered to pay the Division for administrative costs and penalties. The HHMD Investigations Unit is currently working with County Counsel to pursue injunctive relief and identify the best options for the collection of judgments. With an inventory that includes over 16,000 hazardous waste generators and 11,000 hazardous materials handler program elements, HHMD's role in safeguarding the public health and protecting the environment through inspection and enforcement actions remain a formidable task. To this end, the AEO remains our last recourse to achieve compliance. □

## NEW DAMAGE INSPECTIONS DATABASE

By George TerAstvadsadrian

The new Damage Inspection (DINS) database was initiated in October 2008 after a review of the existing database program showed its inability to collect all the information captured by the existing DINS inspection forms. With the new program, the reporting and collection format has become automated and standardized. This allows quick documentation, identification and quantification of damaged and destroyed structures. The first version of the DINS database was completed in December 2008, and underwent testing by DINS personnel in the North District office. Several improvements were suggested which were incorporated into the updated version that came out in May 2009. The DINS database application is Microsoft Access-based and incorporates a custom user interface, automates calculations of estimates of damage based on rebuild cost, percent damage and square footage data. It generates the inspection report, photo evidence report, and the damage estimate summary report and handles JPEG images. Further enhancements are intended to broaden its use to



capture all-hazard, all-disaster information. Although the final application is intended to be a networkable solution, the DINS database application includes features which will allow each computer to operate as a stand alone unit and still produce a combined incident report. During the last demonstration of the DINS database, requests for modifications were made by the DINS unit leaders. Once all the modifications have been completed, all staff on the DINS list will be trained on its proper use. □

## HHMD RETIREES

LANCE RALSTON By Dan Zenarosa

A true Angeleno, Lance Ralston was born in Santa Monica and graduated from high school in El Segundo. He finished his bachelor's degree at UCLA majoring in psychology. In college, he joined the Army ROTC and was commissioned as a second lieutenant in the Medical Service Corp where he served in Vietnam. He joined the Los Angeles County Department of Health Services as an assistant sanitarian assigned in Inglewood Health Center. From there, he moved to our Health Hazardous Materials Division as an inspector, later promoted to site mitigation, and eventually to administration and planning. Under his leadership, the Technical Services Unit and the data operating unit have improved the Business Plan reporting

system and have provided the expertise in the transition to Envision Connect. He retired as the manager of the Admin/Planning Section of the Division after 23 years of service with the County.

Lance wants to be remembered as a person who tried to bring to the table a positive and "can do" attitude, who got along with everyone and believed that any problem can be solved provided you learn the steps from A to B. To him, "the steps are always there, you just have to discover them." To Lance, thank you for your wonderful works and we wish you the best in your retirement. □



JERRY MUNOZ By Fernando Florez

Jerry Munoz retired after 32 years of dedicated service with the County of Los Angeles. He began his career with the County as a student worker. He worked in the Department of Health Services as a registered sanitarian until 1985, when he transferred to our Health Hazardous Materials Division (HHMD) as a Hazmat inspector. He was promoted to the Enforcement Unit, and later to the Emergency Operations Section (EOS) as a supervisor. In 1999, he was promoted as the manager of the Inspection Section.

Jerry's contributions to the County are countless. He oversaw hundreds of emergency responses while in the EOS, and made sure that the releases were mitigated and safe for public re-entry. His hard work and determination helped the HHMD integrate into the Incident Command System. He was instrumental in establishing the Division's Damage Inspections team

(DINS), which has been recognized by the Department.

We can all attest to Jerry's work contributions, but the thing that stood out the most, is the personal attention and help that he gave to us. He genuinely cared about everyone that he worked with and was always there to lend a hand or give advice. Another attribute of Jerry is his sense of humor. His daily cheerfulness and disposition brought so much smiles and happiness to the workplace. Jerry, Happy Retirement!!! □

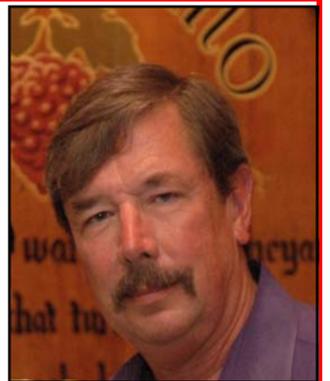


PHIL KANI By Tony Payne

Phil Kani retired in June after 35 years of County service. After graduating from the University of Southern California, Phil began his career in Los Angeles County as a Sanitarian and then moved to Health Facilities. In 1988, Phil obtained the position of Hazardous Materials Specialist with the Hazardous Materials Control Program. After serving two years in Inspection Section, he moved to the Site Mitigation Unit and later to the Emergency Operations Section (EOS). Following his promotion to Supervising Hazardous Materials Specialist, Phil supervised the Technical Services Unit and finally, the West District of EOS.

Unit, Phil was intimately involved with the classification study that resulted in the promotion of Site Mitigation, CalARP, and Investigations Unit staff to HMS III. Following his transfer to the Emergency Operation Section (EOS), Phil successfully organized a campaign that resulted in the additional responsibility bonus currently received by EOS staff.

Throughout his career, Phil has brought credit to the Department and supported his fellow employees in a manner few can compare. Thank you Phil for all you have accomplished and best wishes for the "golden" years. The AARP's gain is our loss. □



## HHMD DEFINING MOMENTS IN THE CUPA CONFERENCE

By Dan Zenarosa



Certified Unified Program Agency (CUPA) conferences are excellent forums where experts share their knowledge and experience with their peers and the public. They also provide opportunities to see the kind of people and culture an organization is made of. Health Hazardous Materials Division (HHMD) has been an active participant in these conferences and in the CUPA Forum, which coordinates this event. In this year's CUPA Conference, four employees from HHMD distinguished themselves as presenters.

Jojo Comandante, Hazardous Materials Specialist II (HMS), who is assigned to the Emergency Operation Section, gave a presentation on "Chemistry for CUPA Inspectors." It was a review of the concepts and reactions in chemistry which are commonly encountered by inspectors in the field. He shared his stories of spontaneous combustion, aluminum powder, hydrogen peroxide and ammonia release incidents that he has responded to over the years.



Teresa Quiaoit, HMS III, who is assigned to the California Accidental Release Prevention unit of the Special Operation Section, presented a "Cal-ARP Overview" discussing the causes of accidental chemical releases and how to manage them. She showed incidents of nitric acid, ammonia and chlorine releases. She stressed the importance of training and operating emergency procedures to prepare the workplace for chemical releases. Her advice was, "an ounce of prevention is better than a pound of cure."



Darin Childers, HMS III, who is assigned to the Investigation Unit of the Special Operations Section, presented "Chlorine Enforcement Case Studies in the Antelope Valley Onion Farms." This case involved several one-ton chlorine cylinders found on 17 onion farm sites unprotected from vandals with a potential use for terrorism. These farms were not permitted for Regulated Substances and had no Risk Management Plan. These operators appeared in an Administrative Enforcement Order hearing at HHMD headquarters and settled for a specified monetary penalty.



Mario Tresieras, who is the Supervising Hazardous Materials Specialist for the West District Office of the Inspection Section, presented the "New Business Project." This is a program undertaken by HHMD to identify and permit facilities that handle hazardous materials or generate hazardous waste, including government agencies, public and private schools, food retail markets, hospital and clinics, malls, hotels and motels.



Lastly, Jeff Holwager, an inspector from the North District Office of the Inspection Section, won the longest drive and team contest in the 2009 CUPA Conference Golf Tournament.

HHMD is committed to continuing staff development of not only our own staff, but that of our peers and the public. We look forward to future CUPA Conferences where we can serve our stakeholders with the highest level of expertise and professionalism. □

## HHMD's ROLE IN PUBLIC HEALTH

By Chief Bill Jones

Everyday we are reminded of the critical role we play in protecting public health and the environment from the dangers and impacts of chemical, biological and radiological agents. As members of the Fire Department, we truly add value to our mission "to protect lives, the environment and property" through the services we provide in our emergency response operations and prevention components. These responsibilities make this Department unique and our work both interesting and challenging.

In the aftermath of 9/11, we have learned the importance of interagency cooperation and coordination in meeting various challenges. We have learned that, by working together, we can achieve our goals more effectively than any of us could do alone.

Recently, the Health Hazardous Materials Division (HHMD) has been discussing a newly drafted Memorandum of Understanding (MOU) with the Department of Public Health (DPH). In this MOU, it is expected that our working relationship with DPH will continue and strengthen. Each party accepts that much has changed since the inception of the original 1991 guidance document when HHMD transferred to the Fire Department. With emerging threats and enhanced capabilities in both Departments, it is important to maintain our connectivity with DPH through an MOU that describes well-defined roles and responsibilities.

Concerns have been raised that DPH is trying to assert themselves in areas where HHMD clearly has jurisdiction. In recent years, DPH has been responding more often to various events, including industrial or wildland fires, where a broader public health concern has been raised. During several fires, Dr. Jonathan Fielding, the Health Officer and Director of the Department of Public Health, has appropriately cautioned the general public on health concerns related to those fires. Since 9/11, much has been written on the role of the local health officer, including authorities and responsibilities during and after significant events, including terrorism or natural disasters. The process of quarantine or isolation are connected to the direct responsibilities of the health officer and mandates that we discuss and work out solutions and inter-agency guidelines or MOU's with DPH.

As these discussions continue, DPH is confident that



HHMD, in its role as protectors of public health and the environment, should continue to be the lead when matters involve chemicals or suspected chemicals. When biological or radiological events occur, we are working on protocols that would define and allow us to assist in mitigation of the incident with DPH assuming a lead function. These discussions should result in a clear understanding of roles and cooperative working relationships.

As Hazardous Materials Specialists, we are actively aware of our core function which, at times, requires consultation with public health subject matter experts. Over the years, we have routinely contacted DPH staff from Toxic Epidemiology, Solid Waste, Water, or Emergency Preparedness. Our MOU will strengthen these contacts and provide an easy, singular communications channel for any DPH unit. It will further establish protocols to allow for direct communications and exchange of information by principal officers in both Departments (HHMD Chief, Director of Environmental Health and Director of Emergency Preparedness) to address significant events. This MOU will continue to evolve and cases/incidents will be examined in debriefings or reviews with appropriate management level staff. As in any project, partnership requires dedication, participating in meetings, implementing activities, evaluating results and making adjustments.

Through this MOU, HHMD and DPH will have the foundation for working together to achieve common goals and objectives. □

*"Success in public health work requires partnerships. We must seek partners at every level and from every segment of communities and neighborhoods, between the public and private sectors, between domestic and international bodies, between nongovernmental and community-based organizations .....*

*-Dr. David Satcher, 2001 U.S. Surgeon General*

## ABOVEGROUND PETROLEUM STORAGE ACT UPDATE

Assembly Bill 1130, also known as the Aboveground Petroleum Storage Act (APSA) of 2007, transferred the responsibility and authority to implement and enforce the requirements of the APSA from the State Water Resources Control Board to the Certified Unified Program Agencies. The law took effect on January 1, 2008, and has authorized money in the Environmental Protection Trust Fund to be used for the training of CUPA personnel on the requirements of the act.

The act provides that CUPA personnel conducting aboveground storage tank (AST) facility inspections shall complete a tank training program and satisfactorily pass an examination on the Spill Prevention Control and Countermeasures (SPCC) plan provision and safety requirements for AST inspection. The 24-hour certification course is being provided by Cal/EPA and the California Specialized Training Institute (CSTI). Students are required to achieve a passing grade of 70 percent

to receive their certification. The class is a thorough technical review of the regulatory requirements including many examples of how the rules apply in the field.

Health Hazardous Materials Division inspectors started their training on May 5, 2009. Others will be taking this training as classes become available. The implementation date for the inspection of ASTs is anticipated to start in January 2010, when the inspection forms or Notice of Violations specific to AST have been completed and all inspectors have undergone training and certification. Training schedules for the fall of 2009 are available at <http://www.calepa.ca.gov/CUPA/Aboveground/Training09.pdf> or contact the Hazardous Materials Course Registrar of CSTI at (805) 549-3344. □



## CHEMISTRY IS COOL

By Barbara Yu

The Emergency Operations Section (EOS) provides 24-hour emergency response capabilities to chemical incidents all over Los Angeles County with the exceptions of El Segundo, Glendale, Long Beach, Santa Fe Springs and Vernon. Each response team is capable of assessing hazards utilizing monitoring equipment and field chemistry tests.

JoJo Comandante, Jr. and Beverly Miguez, both EOS Hazardous Materials Specialist IIs, are our resident chemistry experts. Beverly maintains our field chemistry test kits by preparing all of the reagents in-house, thereby saving the expense of having to purchase ready made reagents. When needed, she will search chemistry literature for methods to test unknown substances. She has been performing this function for over ten years.

JoJo has been volunteering for the past four years as an instructor for the annual "Chemistry is Cool" day at local elementary schools. "Chemistry is Cool" is an annual event that is sponsored by the Commerce Industrial Council and the Community Awareness & Emergency Response (CAER) Group, in conjunction

with the elementary schools. At least four local schools in Bell, Bell Gardens and Commerce participate in this program where students learn about chemistry by taking part in kid-friendly experiments with chemicals. JoJo has also been volunteering as a judge for the South Bay Middle School Science Fair for the past four years. To him, teaching kids is very fulfilling knowing that one has been instrumental in increasing their interest in chemistry.

Both JoJo and Beverly annually train EOS responders and our Department's Hazmat squads on the use of our field chemistry test kits. JoJo also taught the intermediate chemistry session at the Certified Unified Participating Agency (CUPA) Conference this year. Chemistry and the use of testing kits is an essential part of our job. To be able to identify almost any unknown substance using chemistry is a fun and very cool part of our job. □



## LOS ANGELES COUNTY CUPA AUDIT

The Los Angeles County Fire Department's Health Hazardous Materials Division (HHMD) oversees ten cities and two County agencies, referred to as Participating Agencies (PA), in the administration of the Hazardous Materials Management Regulatory Program (Business Plan), Underground Storage Tanks, and the California Accidental Release Prevention Program. To ensure that the PA implements the unified programs in their jurisdictions, the PAs are audited once every three years by the Technical Services Unit of HHMD.

The PAs are not the only ones that are audited. All Certified Unified Program Agencies (CUPA) in California are audited by the California Environmental Protection Agency (Cal-EPA) to ensure that they have the ability to implement the Unified Programs. Cal-EPA is required to evaluate all CUPAs at least once every three years. The Secretary commissions the California Emergency Management Agency, the State Water Resources Control Board, the Office of the State Fire Marshal and the Department of Toxic Substances Control to conduct the CUPA evaluation throughout the State.

The oversight agency takes several steps to complete the evaluation process. These evaluations include the review of files, database, policies and field inspections to identify any deficiency in the administrative, permitting, inspection, enforcement and reporting standards of the CUPA. All deficiencies have to be corrected in order for the CUPA to maintain its certification.



In December 2009, the State oversight agencies will audit the LA County CUPA. Before December 2009, the Technical Services Unit of HHMD will audit the 12 PAs: Alhambra Fire Department, Burbank Fire Department, Compton Fire Department, County Agricultural Commissioner Weights & Measures, Culver City Fire Department, Downey Fire Department, Los Angeles County Department of Public Works, Monrovia Fire Department, Pasadena Fire Department, South Pasadena Fire Department, Redondo Beach Fire Department, and Torrance Fire Department. Its findings will be included in its report to the State evaluating agencies.

In the past evaluation, the LA County CUPA had exceeded the performance standard requirements and had been commended for its continued commitment to protecting public health, safety and the environment. □

## THE 12TH ANNUAL CALIFORNIA UNIFIED PROGRAM AGENCY (CUPA) CONFERENCE



The next CUPA conference will be held at Hyatt Regency Burlingame, San Francisco Airport Hotel on February 1-4, 2009. This will be a great opportunity to update our knowledge and to network with our fellows in the profession. For further details, check out [www.calcupa.net](http://www.calcupa.net).



CUPA Forum Board Members headed by Chairman Greg Smith

## A STINK THAT LASTS

By Jojo Comandante

**W**e encounter odors of every type as we go through our day. Some are pleasant and some are irritating. We can tolerate some odors, but we can also get sick from others.

On March 9, 2009, two school bus drivers complained of a very unpleasant odor that seemed to be emanating from a nine-year-old girl. When she passed by the driver's side, one driver alleged that the odor was so strong and foul that it made him nauseated. A Health HazMat team of Jojo Comandante and Michael Uyehara was sent to investigate. The team inspected the bus and the girl's house, but there was no source of odor found. It was later determined that all her clothes, her shoes and her backpack had been washed prior to the inspection. Upon closer interview, the girl's father admitted to using a chemical that he got from Mexico to clean a spot on the carpet that was soiled by his 86-year-old mother. The father said that he uses this chemical as an insecticide, but he knows that it can also be used to clean stubborn stains. The girl's jacket was stored in a closet that was less than two feet from the soiled spot. The chemical was "creolina" or creosote.

Creosote is the name used for a variety of products, including wood creosote and coal tar creosote. The term creosote, however, is most commonly used to refer to coal tar creosote. Wood creosote is a colorless to yellowish greasy liquid with a smoky odor and burnt taste. It is created by high temperature treatment of beech and other woods. It is not derived from petrochemicals. Coal tar creosote is a widely used wood

preservative for utility poles and is a thick oily liquid, amber to black in color. It is distilled from crude coke oven tar. The "creolina" used by the girl's father was most likely the coal tar creosote.



Coal tar creosote is mainly composed of polycyclic aromatic hydrocarbons. It may also contain phenols and cresols. Because of the variety of components, creosote is believed to be a human carcinogen and is toxic at high levels. What is more interesting to note is its odor threshold. At levels as low as three parts per billion (ppb), empirical studies have shown that the creosote odor can be recognized, specifically because of its naphthalene content. To put it in perspective, the TLV-TWA for naphthalene is 10 parts per million (ppm) or 10,000 ppb. The difference between being able to smell creosote versus its toxic effects is huge – four orders of magnitude. Once it sticks into a fabric or other porous substance, the creosote in ppb levels is hard to remove. The stink lingers.

The girl's father was advised of the hazards of "creolina" and was instructed not to use it indoors. He was also instructed to keep the bottle in secondary containment outside the house and cautioned that a single drop of "creolina" would stink the whole room for a long time. These instructions were apparently followed; the school bus driver reported no additional incident. □

## EXPLOSION AT A REFINERY

By Kenji Mayeda

**I**n a petroleum refinery, crude oil goes through many processes to make gasoline and other petroleum products. It goes through a catalytic hydrodesulfurizer to remove the sulfur. The hydrodesulfurizer takes the sour feed (crude oil with high sulfur content), heats it, and adds hydrogen to remove the sulfur. The sweet product (Naphtha without sulfur) is further processed to its end product, i.e., fuel gas, kerosene, etc.

An explosion at Paramount Petroleum Refinery occurred when the heater to the Hydrodesulfurizer Unit tripped due to a high pressure in the heater box. The operators attempted to light the pilot without first purging the heater box. The sparks from the igniter caused the fuel gas and the air mixture to ignite causing an explosion. The impact knocked one of the operators to the ground, who was transported to the hospital and later released. There were

cracks and extensive damages to the heater box. According to the company, the operators did not follow the procedures outlined in the heater start-up instructions. The main burner valves were not closed prior to resetting the Burner Management System (BSM). There was also lack of communication between the board operator and the outside operators attempting to light the pilot. Due to this incident, the BSM will no longer allow the reset of the main fuel gas without the pilot being lit. It will require a reset by the operator in the field as well as the board operator. A timer has been added to force a 15 minute purge of the heater prior to lighting the pilot. There are other safeguards in place. This incident was investigated by our CalARP unit and by California Occupational Safety and Health Administration. □



## FIRE STATION REFERRAL PROGRAM

By Mario Tresieras

**T**he new fire station referral program is a continuing program of the Health Hazardous Materials Division (HHMD). This project came about when Fire Chief P. Michael Freeman asked HHMD officials to develop a training program for fire station personnel to assist in identifying facilities handling hazardous materials without a permit and send referrals to our Division. It is projected that referrals from fire stations will increase the number of permitted facilities.

In order for our training program to be effective and fit into the staggered schedule of firefighters, a three-minute introduction video by Chief Bill Jones was developed, followed by a seven-minute PowerPoint presentation with instructions on how to identify and refer unpermitted facilities to HHMD.

The ten minute Video/PowerPoint training presentation will be viewed as often as necessary by fire station personnel and will be available on the Department's intranet. Our goal is to have fire station captains view the training program, sign off with their battalion chiefs, print the one-page field reference document, and refer unpermitted facilities to HHMD. If a fire captain determines that a facility does not have a current permit, or is lacking a Unified Program Permit, the



Supervisor Mario Tresieras presenting the topic in the last CUPA conference

Occupancy Inspection Form 484 will be faxed to a centralized number at HHMD headquarters. The facility will then be cross-referenced in Envision and, if necessary, a new service request will be created for the appropriate inspection district to conduct a permit investigation.

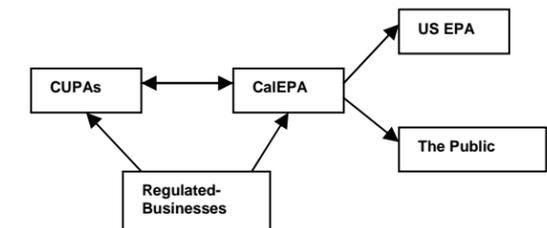
HHMD is always looking for efficient ways to better serve the public and protect the environment. It continues to find ways to coordinate its activities with other agencies to be more effective in implementing the Unified Program as mandated by State laws and other regulations. With this referral program, more facilities will be brought into compliance and the public interest will be further served. □

## ELECTRONIC REPORTING IS COMING

By George TerAstvadsadrian

**A**B 2286 requires that all Certified Unified Program Agencies (CUPA) provide a means of electronic reporting of hazardous materials to the State by year 2013. The California Environmental Protection Agency (CalEPA) will serve as a "virtual data warehouse" for all electronic information. To fund the State-wide electronic reporting project, the Cal EPA has raised the State surcharge by \$25 for each HazMat site, 75 percent of which is available through a grant to CUPAs which may wish to implement their own system. The funding of grants for the implementation of an electronic reporting system is based on a need analysis.

The E-Compliance web portal, and the Garrison systems web portals are two alternatives to the California Electronic Reporting System (CERS), both of which are under consideration by our Division. However, these web portal systems have associated costs while CERS has



none. The advantages of the commercial systems are that they will address all program elements, not just hazardous materials to which CERS is limited, and may offer the potential for accepting credit/debit card processing for permit payment.

Agencies which are already implementing E-Compliance web portal at some level are the Santa Ana Fire Department, and Orange County Environmental Health. We will hear more about electronic reporting as our agency weighs its options for complying with this law. □

## HOW CLEAN IS CLEAN

By *Richard Clark*

The Site Mitigation Unit (SMU) oversees the cleanup of contaminated properties. The questions most people ask pertain to soil cleanup levels. For example, "What is the soil cleanup level for mercuric chloride?" There are numerous guidance lists one can choose from to help conduct initial evaluations at contaminant-impacted properties. To demonstrate the complexity of this issue, the following scenario demonstrates how multiple guidance documents maybe applied to a relatively simple contaminant case.

Let's say "John Smith" is part owner of a property that has lead contaminating its shallow soil. The site is a vacant lot, and John wants to develop it as an industrial park. The average lead (in soil) concentration is 2,000 milligrams per kilogram or parts per million (ppm) with the peak value being 3,000 ppm. John looks up the California Human Health Screening Level (CHHSL) for lead in soil, which is 3,500 ppm. John gets excited because the lead concentrations on his property are below the CHHSL value. Therefore, he can develop his property with no further environmental assessment or soil remediation. John explains his findings to his partner Thomas, who doubts John's conclusion of "no further action" at the site. Thomas, believes the lead CHHSL value of 3,500 ppm is too high. John calls a representative of the California Office of Environmental Health Hazard Assessment (OEHHA), which is the agency that developed the CHHSL values and discovered that OEHHA also believes the value to be too high and that they are in the process of re-evaluating it. He is told that OEHHA will likely lower the commercial/industrial lead CHHSL value in the near future. What is John to do? John makes several phone calls and is advised that the federal Preliminary Remediation Goal (PRG) and the Regional Screening Levels (RSL) for lead were still applicable for most commercial/industrial development scenarios. John was happy to discover that the PRG and RSL commercial/industrial screening values for lead were the same, 800 ppm. John advised his partner, Thomas, that the soil on their property could be cleaned up to concentrations of less than 800 ppm. Again, Thomas was doubtful. He told John that if the lead at the property was not cleaned up to residential screening level, a deed restriction may be placed on the property. A deed restriction would prevent future non-commercial developments (e.g., homes and schools) whose occupants could be susceptible to elevated health risks associated with lead concentrations. Thomas believed a deed restriction would reduce the value of the property. John concurred with Thomas' concerns and decided to clean-up the lead-impacted soil to residential screening levels. John



and Thomas took the conservative approach and removed all lead-impacted soil from their property exceeding the residential CHHSL value of 150 ppm. They were happy with the conservative approach because they knew they had a "clean" site. This however, turned out to be wrong.

John and Thomas sold their property and made a small fortune. During site development, the new owner's contractor excavated a huge area to be occupied by a subterranean parking garage underlying the commercial complex. Since the stockpiled soil could not be used on site, it had to be transported off site to a landfill. Before the landfill would accept the soil for disposal, the soil stockpiles had to be chemically characterized. Soil samples were collected and analyzed. Laboratory results indicated that soluble lead in the soil stockpiles exceeded the California Soluble Threshold Limit Concentration (STLC) value of 5 mg/L. STLC values are not screening values, they are the law. Therefore, since the soluble lead in the soil stockpiles exceeded the associated STLC value, the stockpiles had to be managed and disposed of as hazardous waste. This made the new property owner extremely angry because he thought he purchased a "clean" site. He was so mad that he tried to sue John and Thomas but, because they had disclosed the known site contamination before selling the property, the new owner had no legal recourse. Despite his frustration with having to pay extra money for soil disposal, he still developed the property into a profitable commercial complex that was an environmentally safe establishment for workers and shoppers.

Hopefully, this scenario demonstrated the potential complexities associated with the use of multiple soil screening guidance documents. Such documents should not be viewed as shortcuts to avoid potentially applicable human risk evaluations. In addition, one should be aware that health risk management is different from hazardous waste management. □

## CONTINUING EDUCATION FOR HAZMAT REGISTERED ENVIRONMENTAL HEALTH SPECIALIST

Pursuant to the California Public Health Act of 2006, the California Department of Public Health (CDPH) has the authority to adopt continuing education standards for Registered Environmental Health Specialists (REHS) effective July 1, 2007. The regulation requires a minimum 24 contact hours of continuing education units (CEU) as a condition for the biennial registration renewal for REHS. Continuing education will assist in maintaining the competency of the REHS in the dynamic field of environmental health.

The Health HazMat Division has 44 active REHS personnel out of its total 83 Hazardous Materials Specialists. They too are covered by this regulation requiring 24 contact hours of CEU. A contact hour is defined as 50-60 minutes of actual class time. One CEU is awarded for 10 contact hours of instruction, one quarter unit equals 10 contact hours, and one semester

unit equals 15 contact hours.

The California Environmental Health Association, National Environmental Health Association and the California Certified Unified Program Agency Forum have applied to become Accreditation Agencies that would approve the continuing education courses. Eligible course works includes topics in solid waste, liquid waste, medical waste, water supply, housing and institutions, hazardous materials, underground tanks, and others. The CDPH will rely on the Accreditation Agencies to ensure that continuing education provided by recognized providers meets the goal of maintaining the technical competency of the REHS workforce. This continuing education standard is planned to take effect starting January 1, 2010. □



## EMERGENCY RESPONSE TO LA MESA JUNIOR HIGH SCHOOL

By *Michael Uyehara*

On a normal day, the Health Haz Mat Division (HHMD) Emergency Operations Section (EOS) deploys three emergency response teams and two single staffed back up positions to respond to a wide variety of hazardous materials incidents within the County of Los Angeles. The incidents may vary in size and complexity including identifying the unknown contents of an abandoned container in an alley, or responding to an unknown biological or chemical agent related to suspected terrorism.

On April 23, 2009, three EOS response teams were engaged in other incidents when the two back up teams were called to respond to reports of students getting sick from drinking water. While en route, the responding team learned that the incident was at La Mesa Junior High School in Santa Clarita and the water in question was dispensed in bottles from a vending machine. Since the incident was at a school and involved bottled water, County of Los Angeles Environmental Health was immediately notified. Within 45 minutes of being called, the first member of the EOS Team arrived on scene and began gathering information from the responding LA County Engine Company and Battalion Chief. It was learned that 12 students had been transported to four area hospitals complaining of headaches, nausea, and abdominal cramps after consuming water from two separate bottles. School officials had already closed off all the water dispensing vending machines. The two bottles were handed over to the EOS responders for

analysis. The plastic bottles and contents were visually examined and smelled. Except for a few bubbles in one, slight turbidity in another and small black spots on the cap threads, the product appeared normal. Field tests were then performed checking for ammonia, chlorine, flammables, pH and protein. County of Los Angeles Sheriffs Hazardous Materials Units assisted in the process and performed additional testing from their mobile laboratory with no unusual results.



Other agencies arrived on the scene, including County of Los Angeles Public Health and the Federal Bureau of Investigations (FBI). Public Health personnel interviewed the stricken students and reported at the closing of the incidents that all students were released or waiting to be released with no clinical symptoms. The FBI and the Sheriffs Department determined that there was no evidence to support a crime or act of terrorisms based on the given information.

As agreed by all the agencies present, the two original bottles of water and other bottles of water from the vending machine were taken by an HHMD Investigation team to the County of Los Angeles Sanitation Laboratory for additional chemical and biological testing. Further analytical testing failed to find any reasons for the student's complaints. □