E-PLAN™ NEWS

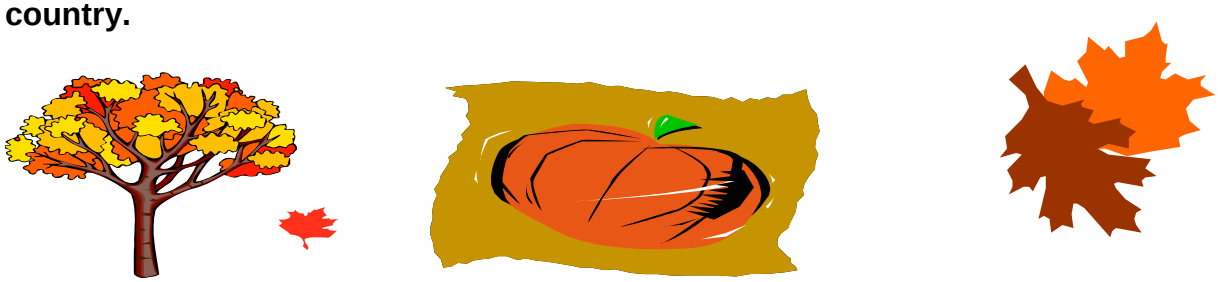
October, 2004

http://www.utdallas.edu/research/dfepi/

When every second counts…

Hello, E-Plan™ Users and friends,

Here is the October, 2004 Newsletter to update you on E-Plan™ happenings and news in Arkansas, Louisiana, New Mexico, Oklahoma, Texas and around the country.



E-PLAN™ FEATURES UP-DATE…

Developing an On-line Tier II Submission Module. The EPA Office of Emergency Prevention, Preparedness, and Response has tasked UTD with developing an on-line Tier II submission module within E-Plan™. This module will facilitate on-line preparation of Tier II forms, with auto fill capabilities for several information types, and a variety of chemical reference sources. The module will support creation of Tier II Submit zip files that can be downloaded or e-mailed, and will also support direct server-to-server updating of state owned data systems. This function is expected to save the regulated community, and public-sector, administering agencies millions of dollars each year, while also greatly improving the amount of information that can be made available to first responders.

- An advisory group, which will consist of state and local Tier II data managers, regulated facilities, and end users will be formed to develop system specifications and guide the development process. An initial meeting of this group is being planned for sometime during the week of November 15-19, in Las Vegas, NV, to coincide with the **Hazmat Explo[8]** conference, and the annual meeting of the National Association of State Title III Program Officials (NASTPO).

E-PLAN™ TRAINING NEWS…

- ✓ **As of September 30, 2004, E-Plan™ has 6,539 facilities and 21,053 chemicals in its database. Total number of E-Plan™ Registered Users is now 560.**

- ✓ The Louisiana State Police, who have custody of all Louisiana Tier II data, are in the process of providing all the data for the state for incorporation into E-Plan™.

- ✓ Nineteen new E-Plan™ users were trained in McKinney, Texas on September 13, 2004.

- ✓ Five new E-Plan™ users were trained at Southwest Arkansas Planning and Development District in Magnolia, Arkansas on September 21, 2004.

- ✓ New Mexico is beginning the process of adopting E-Plan™ for state wide use by First Responders. We will meet with key personnel on October 19, 2004 in Albuquerque to plan the E-Plan™ training in major cities throughout the state. E-Plan™ training is scheduled on December 14, 2004.

- ✓ E-Plan™ will be presented in Amarillo, Texas on October 26, 2004.

LOOK FOR E-PLAN™ BOOTH AT THE…

- **Hot Zone Conference, October 13-16, 2004, at the Adams Mark Hotel in Houston, Texas.**

- **Clean Gulf 2004, November 17-19, 2004, at the Tampa Convention Center in Tampa, Florida.**

HOMELAND SECURITY NEWS…

➢ ***There are two new chemical Terror Alerts published by the Department of Homeland Security; the use of sodium azide and thermite as weapons.***

- ***Sodium azide*** is the explosive device in automobile air bags that inflates them with nitrogen. Large quantities of sodium azide can be used as a powerful improvised explosive.

- ***Thermite*** is a mixture of iron oxide and aluminum powder that burns hot enough to weld steel. It is actually used industrially to weld railroad rails and grounding cables to steel. Thermite could be used to weaken bridge structures or buildings.

We will have the links to these terror alerts available on E-Plan™ web site soon.

- **A Melbourne, Australia engineer has invented a patented system that could eliminate the risk of liquefied petroleum gas (LPG) explosions – BLEVEs** (Boiling Liquid Expanding Vapor Explosions), **if it proves to be successful.**

"Gas tank explosions are devastating, causing widespread damage and casualties. And yet LPG is a much cheaper and cleaner fuel than petrol. What I have invented is a system that will stop LPG tanks from exploding," says Fresh Innovator Colin Young. He plans a dramatic test of the device at the World land speed record attempt at Lake Gairdner in SA in March 2005.

When LPG (liquefied petroleum gas, or propane) tanks are engulfed in a fire, they explode in a devastating manner, called a BLEVE - boiling liquid expanding vapour explosion. The explosion occurs because the top of the tank becomes very hot and weakened then the high pressue fuel inside causes the tank to rupture and explode. Melbourne firemen feared just such an explosion in 2003 when an LPG tanker crashed near high rise apartments in Flemington.

"Preventing BLEVEs is actually quite simple," says Colin. "Inside the tank is liquid LPG which means the bottom of the tank is always going to be much cooler than the top where there is just gas against metal. It is the top that gets overheated and ruptures."

"On all tanks there is a pressure relief valve at the top. So I have fitted a pump to the valve. It's driven by the pressure of the vapour releasing. It sprays cold liquid LPG from the bottom of the tank upwards onto the internal surface of the top of the tank. This stops the top of the tank from over-heating, rupturing and exploding."

"It's amazing that no one has ever thought of this simple solution to a major problem," says Colin.

The anti-BLEVE system can be fitted into new LPG tanks for cars and buses as well as larger storage and transportation tanks used by industry. It can also be retro-fitted to existing tanks. The system is automatic, does not require power and is durable as it is immersed in non-corrosive liquid fuel.

Colin witnessed first hand the power of a BLEVE when working on alternative-fuelled vehicles in North America. Instead of a gas fuel being released, liquid fuel escapes which exacerbates the intensity of the fire. It releases 270 times the amount of fuel that would have been released as a vapour.

The anti-BLEVE system has been granted a US patent. Colin's invention has already won him a place at Fresh Innovators – a national initiative to bring the work of 16 early career innovators to public attention. After initial training in Sydney in May, the sixteen are talking to the media, schools and business about their ideas. One of the 16 will win a study tour to the UK courtesy of the British Council Australia.

Colin plans a dramatic test of his system during the world speed record attempts which are held each year at Lake Gairdner in SA. He will set up two identical LPG tanks – one protected, one not. He expects the results will demonstrate to firemen, emergency-services personnel, insurance companies, unions and the general public that LPG can be made stored more safely.

"Any device that is capable of providing a safer community would be welcomed," says Alan Quinton, Assistant Chief Fire Officer for Melbourne's Western Zone, a region encompassing 13 fire stations, 350 firefighters and industrial areas with many industrial LPG tanks.

"This proposed device if successful will provide a safer environment for not only the community but for firefighters who are responsible for dealing with LPG tanks being impinged by fire."

"I hope my invention will help eliminate the fear that many people have of using LPG and encourage them to swap over from petrol and diesel," says Colin. "Rather than having to rely on imported fuel, Australia will be able to make use of our own abundant supplies."

This is a very interesting concept. If you would like to learn more about the technical description of this invention, go to http://freshinnovators.org. Click on the "Stopping gas tanks exploding" link.

E-PLAN™ SUCCESS STORIES…

Assistant Chief Michael Hernandez, Corpus Christi Texas reports that his fire department used E-Plan™ four times in August. Chief Hernandez says that "We had a sulfur release, a major benzene spill, a sulfur recovery unit gas leak, and an H2S event. E-PLAN™(as usual) came in handy for providing us with the technical data we needed and the weather links.

Interesting note; the contact people had changed for the facility, so when we called the numbers provided, we were able to identify this issue with the facility staff – the point being that responders are utilizing Tier II data and facilities need to make sure facility contact info is up to date, and correct. This came as something of a surprise to the "new" plant manager and emergency coordinator. I am sure they will keep their contact information more up to date, now.

Corpus Christi has a Standard Operating Procedure in our Department for the Hazmat Team to check E-Plan™ prior to going out on a call. That way we have Tier II data, MSDS's and CHRIS data when we arrive on the scene at a facility."

FEEDBACK…

- **Tell us what you think about E-Plan™** – We welcome all of your questions and suggestions about E-Plan™ System, E-Plan™ Website, and the E-Plan™ Newsletter.
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