

“Promoting
awareness
of Health, Safety
and
Environmental
initiatives to local
businesses”

2014 – 2015
Seminars

20th August 2014

CPC Driving Training

17th September 2014

Waste Management
& Waste
Minimisation

22nd October 2014

Ken Woodward DVD
“Hindsight” + a
guest who was part
of the investigation

19th November 2014
DSEAR – Fire and
Explosive Risks

18th February 2015
HSE and Legal
Update

18th March 2015
Mock Trial

15th April 2015
AGM



Herefordshire Health and Safety Group

Newsletter – November 2014

19th Nov 14 - DSEAR Seminar Review.

Starting off the seminar the first presenter – Peter Griffiths of [Dwr Cymru Welsh Water](#) introduced himself as starting work for the company as a tanker driver, before working his way up to his current position 34 years later as the DSEAR Technical Surveyor.



Peter Griffiths during the presentation on DSEAR / PEXA

Peter explained the differences in DSEAR (Dangerous Substances Explosive Atmosphere Regulations 2002), PEXA (Potentially Explosive Atmospheres) and ATEX (derives its name from the French title of the 94/9/EC directive: Appareils destinés à être utilisés en ATmosphères EXplosibles).

Dwr Cymru Welsh Water needs to monitor explosive atmospheres in its sludge dryers, sewers pumping stations and batteries. This was elaborated on with examples given of the huge explosion at the Southport Golf course whereby sufficient quantities of petrol had leaked into flood water drains before igniting when the automatic switch kicked in on the pumping station under the ground.

Another example given was when a tree had grown sufficiently to make contact with overhead lines which then earthed down the tree until it made contact with flammable gases built up in the sewer. The force of the explosion was so great; it blew 5 manhole covers off (3 weighing 1 ton each).

Concluding, Peter explained how his current project is to Zone and De-zone all the assets of the company with regards to the likelihood of petrol leaking into the sewer system with the potential to cause explosive atmospheres..

Part 2: Live demonstration of explosions

The second presentation of the morning was given by Bill Meath of Denios. The presentation was to enable members to see the dramatic effect explosions can have – by way of live demonstrations:



Bill Meath of Denios demonstrates how easy explosions can occur.

Bill Meath opened up the second session with a brief overview of the legislation regarding DSEAR and when the law applies. A look at the fire in Switzerland at the Sandoz chemical store in 1986 followed, whereby the run off of polluted water still to this day affects the marine life in the River Rhine.

Live demonstrations followed showing examples of how dust, batteries and static can ignite flammable gases if the conditions reach the perfect combinations. Ear defenders were defiantly the order of the day as some experiments were rather loud!

The Danger Triangle was examined and how the proportions of heat, fuel and oxygen can have a dramatic effect on the resulting combustion. A real life video was shown of the dangers of using a mobile phone, this resulted in a large fire from the gases of the tank reaching electrical equipment.

Concluding Bill gave explanations on how quite a number of gases are heavier than air, therefore sinking down stairwells which can cause explosions in the not so obvious places like cellars etc. Drums and the need to store chemicals in proper 30 min fire break containers was highlighted as well as the different rules in EU countries where their minimum fire break period is 90 minutes concluded the seminar.

The HHSG would very much like to thank [Westons](#) for allowing us to use their facilities on the day.

Next Seminar – 18th February 2015 HSE Update and Legal Case Studies

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The Herefordshire Health and Safety Group is proud to be associated with, or affiliated to the following:

