



South Cumbria District
Manchester & NW
Districts' Branch

Joint meeting

Next meeting reminder, February 2012 Minutes & Notices



South Cumbria
Occupational Health
& Safety Group

Next Meeting

Topic: *Electrical Safety at Work*
Speaker: Steve Dunstan,
Safety & Training Consultant, FAS Consultancy and Training Ltd, Morecambe
Date: 1330, 15 March 2012
Venue: The Netherwood Hotel Grange Over Sands Cumbria LA11 6ET

February Meeting Minutes

Topic: COSHH: what you need to know
Speaker: Mark Selby, Director, Denehurst Chemical Safety Ltd
Date: 16 February 2012
Venue: The Netherwood Hotel, Grange-over-Sands, Cumbria LA11 6ET

The names of those attending our meetings are recorded, if you need proof of attendance please contact Geoff Price, Minutes Secretary (contact details in the programme)

Our Chairman, Martin Fishwick, welcomed members to the meeting followed by a special thank you to our speaker who had kindly agreed to make a presentation on COSHH to the group at very short notice. After the usual health and safety preliminaries and notices Martin introduced today's speaker, Mark Selby, Director, Denehurst Chemical Safety Ltd, to discuss some of the important changes to labelling of COSHH substances and how to deal with these changes.

Mark began by introducing himself. He explained that his main role was as a consultant to policy makers in the EU, Government bodies and chemical manufacturers and providing training for managers of substances covered by various EU directives. He said that keeping 'hands on' contact with 'end users' of chemical substances was an important part of his work because the people writing hazard data sheets were often theorists rather than users and tended to tailor their guidance for users handling large quantities of COSHH substances. Therefore Mark said that he found attending meetings such as ours was a valuable way for him to obtain useful 'feedback' for policy makers.

Mark started his presentation by reminding us that it was important to understand that the underlying spirit of COSHH and related legislation was to ensure that:

1. *All chemicals* are clearly identified so that:
 - Their potential hazards can be adequately assessed and
 - Suitable risk management measures can be undertaken and communicated to employees.
2. *Suppliers of chemical products* are expected to:
 - Communicate hazardous substance information in a meaningful way that can be easily used to develop safe systems of work for processes where the substance is used and
 - Only actively market chemical products if the potential uses are considered to have an acceptable level of risk (as long as users follow risk management advice).

Mark explained that the *Control of Substances Hazardous to Health Regulations 2002* (COSHH) are UK regulations that enact a series of EU Directives. The regulations apply to all industries, not just the chemical industry, and give all employers responsibility for ensuring that their employees are adequately protected from the potential hazards of chemical substances used in the workplace (including cleaning materials). They also require chemical suppliers to provide adequate hazard information about the chemical substances they supply. Therefore the implementation of *COSHH 2002* in the workplace is an integral part of managing Health and Safety at work.

Mark said that, in practice, this means that employers have responsibility for ensuring that there are safe systems of work for the use of COSHH substances. *COSHH* assessments can be delegated to competent employees, but, ultimately, it is the employer's responsibility to ensure that they are done and that employees have been adequately trained.

Mark then looked at the process of *COSHH* assessments after stressing that this should not involve reams of paperwork, but should be clear and precise and include the following steps:

- *Gather information on chemical products* from: Safety data sheets (SDS) and labelling on containers (there is a responsibility to be 'confident' that the information gathered is correct).
- *Identify proposed uses*: including potential handling problems and disposal (not part of *COSHH*, but needs to be done because of other legislation)
- *Assess risk to workers*: from handling and use of the chemical substances.
- *Consider risk reduction*: through engineering controls or personal protective equipment (PPE) law enacting EU Directives if appropriate.
- *Establish a safe system of work*: for handling and risk management of the chemical substance(s).
- *Consider appropriate instructions and training*: for all employees.
- *Review process on a regular basis*: time intervals dependent on the level of potential hazard, or after an incident.

Mark then reminded members that there was some excellent guidance on COSHH on the HSE website <http://www.hse.gov.uk/coshh/index.htm> that was aimed at a number of industries. This includes advice on:

- *Procedures*: for example, excessive contact with water, paint spraying etc...
- *Product types*: such as brake fluids, detergents, inks etc...
- *Risk management*: such as types of gloves, goggles etc...

HSE have also published guides to help with understanding hazardous substances, use of protective equipment, case-studies etc... In addition they have also provided software support linked to their guide *COSHH essentials* <http://www.hse.gov.uk/coshh/essentials/index.htm>

Mark said there are also other organisations, such as Sevron, that offer additional software support <http://www.sevron.co.uk/> and some free advice on implementing COSHH in the workplace.

Mark then warned that COSHH is getting more complex because recent *EU Directives* and *Regulations* mean that chemical suppliers are now legally required to provide more detailed hazard information including information about what precautions need to be taken when using substances for particular tasks. The two most important EU regulations in this context are:

- *The Registration, Evaluation, Authorisation and restriction of Chemicals 2007 (REACH)*. It replaced a number of European Directives and Regulations with a single system. <http://www.hse.gov.uk/reach/whatisreach.htm>
- The European Regulation (EC) No 1272/2008 on *Classification, Labelling and Packaging* of substances and mixtures known as the *CLP Regulation 2008*, came into force in all EU member states, including the UK, on 20 January 2010.

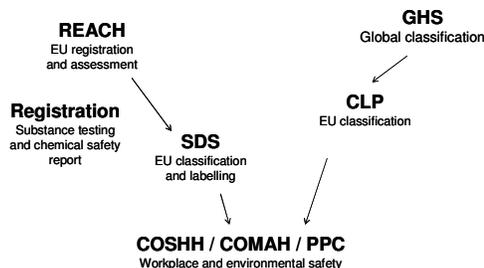
Information about how both these regulations affect *COSHH* can be found on the HSE website: <http://www.hse.gov.uk/coshh/detail/coshh-clp-reach.htm>

An unintended consequence of these regulations is that *Substance Data Sheets* (SDSs) are getting much longer so that it is more difficult for end users to extract relevant information.

In addition the world harmonisation of hazard label symbols for chemical substances (under CLP) means that employers and employees have got to get used to the new symbols. This will be particularly difficult during the next few years because newly packaged substances will use the new labels, but products packaged before CLP applied will be labelled with the 'old' EU symbols.

Mark said that REACH and CLP will mean that assessors are provided with an unprecedented amount of data to 'help' them do their *COSHH* assessments, but, as with many 'good ideas' the hardest part is for employers ensuring that their administrative systems are robust and up to date.

Mark then displayed diagram linking the relevant regulations:



Mark explained that employers receiving chemicals into their workplaces have the following legal duties:

- To consider: chemical data supplied.
- To use: the substance information to help protect employees, visitors and the environment.
- To have confidence: in the supplier's information ie use a reputable supplier.
- To assess quality and certainty factors provided in the Substance Data Sheet (SDS).
- If selling on to third parties: become responsible for providing accurate substance hazard data to them.
- Need to have a delegated competent member of staff who understands incoming data and exposure scenarios and can give clear advice on the safe use of these substances for workplace processes.
- Inform supplier of adverse effects not mentioned in SDS or any that arise when following SDS guidance.

Mark said that *COSHH 2002* is still the UK enacting law that covers various EU Directives on worker and workplace safety of chemicals but that the new EU Regulations (*REACH* and *CLP*) will mean that the level of information available is more 'complete'. Unfortunately, in practice this translates as more complex! However, controlling exposure in the workplace is still the main objective and the data generated under *REACH* and communicated with *CLP* will allow a more targeted approach for the use of hazardous substances in the workplace as long as relevant information can be extracted from the SDSs.

Suppliers have a legal duty to provide *Substance Data Sheets* (SDSs) to their business customers, for all dangerous substances, dangerous preparations and substances with EU-recognised exposure limits.

- *When*: before (or at the time of) supply of the dangerous material.
- *Updates*: must also be pro-actively supplied to customers.
- *Additional information*: must include date of writing and revision dates.
- *General public*: no SDS required.

Mark then considered extended SDSs. These are needed as soon as hazardous components have been registered required under *REACH*. From that time it is obligatory for registrants to pass information down supply line and for recipients to pass the additional information down supply line if the hazardous components are used to create a substance where the component will contribute more than 1% to the potential hazards of the substance mixture.

Next Mark turned to the Global harmonised Hazard Labelling system (*GHS*) that is being introduced throughout the EU under the *CLP Regulations*. The new system will run concurrently with the original EU system for a few years until 'old' substance containers are no longer in use. It is similar to the earlier labelling system, but uses some different symbols and phrases. The two labelling systems:

- Cover approximately the same hazards.
- Use similar or equal classification criteria.
- Use an equivalent system of hazard communication.

The two systems are different in that there are some changes in terminology, e.g. "mixture": some new hazard classes are introduced, some labelling elements are changed, some classification criteria are different or use different cut-offs and some mixtures are handled differently.

The most obvious changes include:

- New symbols (see below).
- *Signal words*, instead of *Hazard Class*.
- *Risk 'R' phrases* **replaced by: Hazard 'H' statements**.
- *Safety 'S' phrases* **replaced by: Precautionary 'P' statements**.
- Many more 'H' and 'P' statements (with 3 digit numbers that are more difficult to remember).

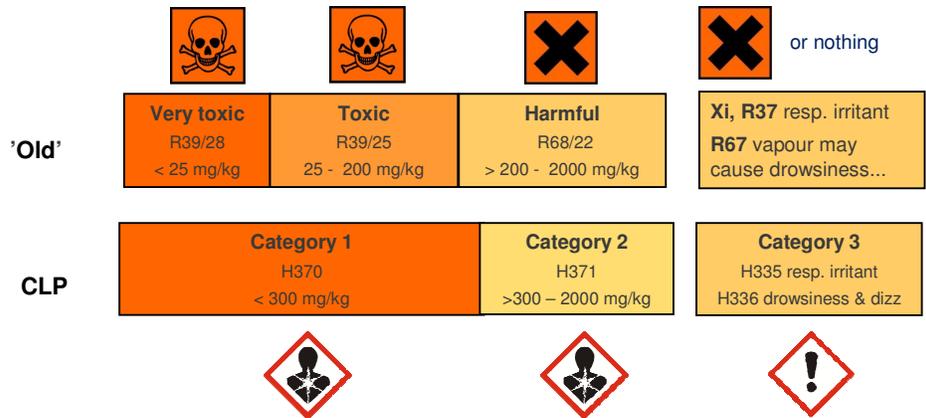
Mark then 'talked through' the new labelling system using the table below.

Table 1: Showing the 'new' and 'old' hazard data labels and phrases.

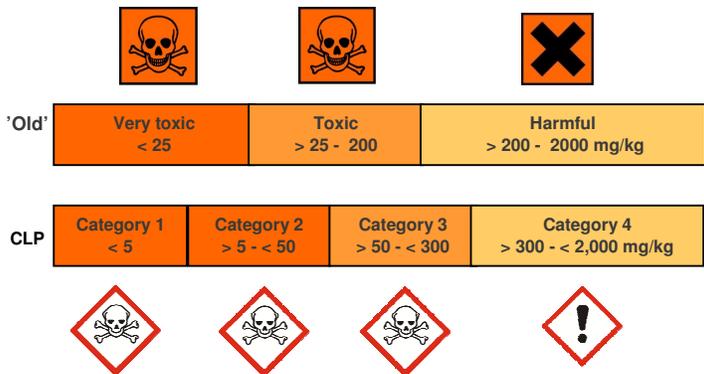
Physico-chemical hazards			
CLP symbol	'Old' symbol	Substance type covered & hazards	
		Explosive Self Reactive Organic Peroxide	
		Flammable Gases Flammable Liquids Flammable Solids Flammable Aerosols Organic peroxides	Self-Reactive Pyrophoric Self-heating Contact with water, emits flammable gas
		Oxidizing gases Oxidizing liquids Oxidizing solids	
		Gases under pressure	
		Corrosive to metals	
		Acute toxicity Very toxic (Fatal) Toxic	
		Corrosive (causes severe skin burns and eye damage) Serious eye damage	
		Respiratory sensitiser Mutagen Carcinogen Reproductive toxicity	Systemic Target Organ Toxicity Aspiration hazard
		Acute toxicity Harmful Skin irritation Serious eye irritation	Respiratory irritant Skin sensitiser Narcotic

Mark explained that although there are no new hazard classes, and, there is no significant extension of scope for individual substances changes in terminology may cause confusion. However, the different calculation methods for mixtures of substances may change a mixture's final hazard classification category.

Mark then drew members' attention to the new symbol for chronic effects *Systemic Target Organ Toxicity* (STOT). He said that substances in this category have non-lethal effects after single/short term exposure or, they may: target specific organs (eg liver) or blood, nerves, or, oral, dermal or inhalation exposures may occur and, damage may be: reversible and non-reversible, immediate or delayed and is not covered by other classes such as eye irritants. He then showed members a diagram highlighting the differences and similarities of the 'new' and 'old' toxicity systems.



Mark then explained that the labelling for oral toxicity was very similar for the two systems although there was an additional CLP category (see diagram below).

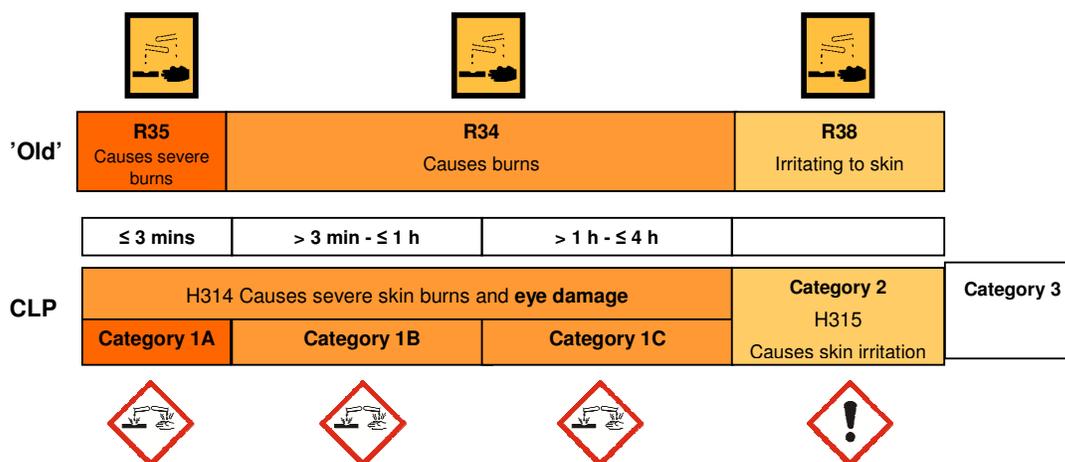


Next he looked at the *CLP* symbol for:

- Skin corrosion: defined as irreversible damage
- Skin irritation: defined as reversible damage to the skin after 4 h exposure and 14 days observation and
- Eye irritation: split between reversible and irreversible

He explained that substances were included in this category based on human experience, if they had extreme pHs: >11.5 and <2, other adverse physical properties and after *in vitro* testing.

He said that this was the most problematic of the CLP symbols because the new symbol did not visually or intuitively indicate that that the substance can cause eye damage as well as being corrosive to the skin, although logic does indicate that both must apply (see diagram below).



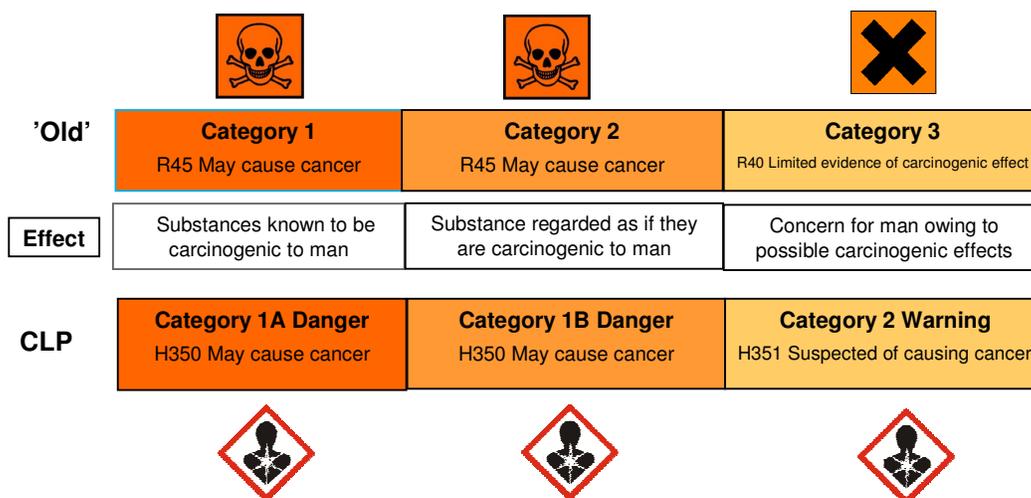
The criteria for skin and respiratory sensitisation are also similar for both systems so that the classifications can be read across although there is a new criterion, with lower concentration limits, for the most potent sensitisers. Sensitivity is not treated as additive; it is usually substance specific.

Mark then explained the definitions of carcinogens, mutagens or toxic for reproduction (CMRs) under CLP:

- *Carcinogen*: induces cancer or increases its incidence.
- *Germ cell mutagenicity*: a mutation in the germ cells (egg or sperm cells) that can be transmitted to progeny.
- *Reproductive toxins*: adverse effects on sexual function and fertility in adult males and females, developmental toxicity in the offspring, effects on or via lactation.

Mark explained the three CLP categories for carcinogens, mutagens or toxic for reproduction (CMRs) using the following definitions and the carcinogen diagram below.

- *Category 1a*: known human effects, or, presumed human effects based on animal data, or similar substances.
- *Category 1b*: suspected human effects, based on clear animal data and judgement based on expert judgement.
- *Category 2*: suspected human effects based on limited or possible effects in animals or expert judgement.



There are similar CLP categories for mutagens:

- Category 1A: H340 May cause genetic defects.
- Category 1B: H340 May cause genetic defects.
- Category 2: H341 Suspected of causing genetic defects.

All these are covered by the CLP symbol:



There are similar *CLP* categories for substances toxic for reproduction:

- Category 1A: H640 May damage fertility or the unborn child.
- Category 1B: H640 May damage fertility or the unborn child.
- Category 2: H362S Suspected of damaging fertility or the unborn child.

All these are covered by the CLP symbol:



Mark then considered environmental hazards.

Environmental hazards		
CLP symbol	'Old' symbol	Hazard
		Acute/Chronic hazard

Mark said that there was essentially no change in the way that environmental damage was assessed only changes in the nomenclature:

- Category 1A: H400 Acute < 1.
- Category 1B: H410 Chronic, very toxic < 1, not RB or KOW* > 4.
- Category 2: H411 Chronic, toxic 1 – 10, not RB or KOW* > 4.
- Category 3: H412 Chronic, harmful 10 – 100, not RB or KOW* > 4.
- Category 4: H413 Chronic, poorly water soluble, not RB or KOW* > 4.

All these are covered by the *CLP* symbol:



* KOW: the octanol/water partitioning coefficient used in calculations to assess biodegradability.

Mark also showed members a table of the differences in flash point 'cut-off points' for the two systems:

CLP symbol	New categories	'Old' categories	'Old' symbol
	Danger Category 1 < 23 °C Boiling < 35 °C	F + R12 Extremely flammable < 0 °C Boiling < 35 °C	
		F R11 Boiling < 0 °C Bpt > 35 °C	
	Danger Category 2 < 23 °C Boiling < 35 °C	F R11 Highly flammable < 21 °C Boiling > 35 °C	
	Warning Category 3 23 ° – 60 °C	R10 Flammable 21 ° – 55 °C	
	Category 4 60 ° - 93 °	No equivalent category	

Mark explained that CLP *Substance Data Sheets* are required to have *Exposure Scenarios* (ESs) for hazardous substances where a *Chemical Safety Report* (CSR) was needed, although, in practice, suppliers may demand this information for all substances. CLP requires that *Exposure Scenarios* (ESs) must be relevant to real life and individual for each supplier, although they can be based on generic ESs prepared by industry groups or *Substance Information Exchange Fora* (SIEF). They also need to be stand-alone and readable. In practice this is not the case because all the additional information that has been added to CLP *Substance Data Sheets* has made them into cumbersome documents that are difficult to extract relevant information from.

Mark said that he was hopeful that this situation would improve, but that it would take time. To help members navigate their way through CLP *Substance Data Sheets* he highlighted some of the important CLP codes:

- *Sector of Use* code: **SU**
- *Product Category* code: **PC**
- *Process Category* code: **PROC**
- *Environmental release category* code: **ERC**

Mark said that the *Chemical Safety Reports* were supposed to be stand-alone documents including: summaries of all hazard data, reasoning for classification, the estimated (derived) no effect levels, details of uses and scenarios of exposure and advice on practical risk management measures. In practice those already published appear to be: rushed to meet deadlines, extracted from IUCLID with no added data interpretation, include exposure scenarios derived from defaults and models (often with little consideration of the 'real world') and are very long and impenetrable.

Unfortunately the defaults in guidance and models are generally based on 'worst case' scenarios and they may bear little resemblance to the amount of substance used in specific workplaces therefore it is acceptable for employers to use their own site risk assessments if 'exposure scenario' defaults do appear to be relevant, but, these must be substantiated. If the substance 'exposure scenarios' are relevant then use the defaults because it is quicker than trying to do your own estimates.

Mark also warned that sometimes the defaults in *Substance Data Sheet* guidance and models do not reflect practical workplace experience or manufacturers' data. For instance they:

- Assume certain percentage discharge (ERC/SPERC) such as a 100% loss to environment for consumer goods.
- Assumes specific reduction in worker exposure with gloves and coveralls: such as suggesting a 90/95% efficiency which does not necessarily fit with manufacturers' 'break through' data.
- Assumes efficiency of certain engineering controls: such as suggesting 90% protection for LEV when workplace use of LEV often cannot match this level of efficiency.

Mark concluded by wishing members 'Good luck' when revising their *COSHH* assessments to take account of CLP and REACH and suggested that we should remember:

- All of industry is in this together.
- Asking too much from suppliers will put up their costs.
- A very long incoherent *Substance Data Sheet* is not helpful to anyone.
- Do not be put off by long data sheets use the CLP codes to identify information **relevant** to your use of the substance and focus on that information for your *COSHH* assessment.
- Ask your suppliers for help.
- Inform your suppliers if you think there is incorrect information on their SDSs.
- Good customer service includes good communication.
- Concentrate efforts and resources where they are needed most ie not on wordy documents that are read by no-one and contain irrelevant information!
- REACH, SDS etc... is ongoing therefore all *COSHH* data and documents need to be regularly updated with relevant information for your specific uses of hazardous substances.
- Make sure that *Substance Data Sheets* get to the employee(s) responsible for *COSHH* assessments and SDSs do not end up filed away in a distant administrative office because they arrived with the invoice.

Martin then thanked Mark again for making a presentation, to our group, at such short notice, and for managing to provide members with clear, useful information on such a complex subject. Mark was presented with a small token of members' appreciation.

After notices the formal part of the meeting was closed and members networked with one another and our speaker over tea or coffee and biscuits.

Speaker contact: mark.selby@denehurst.co.uk

Denehurst Chemical Safety Ltd web site: www.denehurst.co.uk

Free COSHH compliance pack available at: <http://www.sevron.co.uk/>

NOTICES & NEWS HIGHLIGHTS FOR MEMBERS

Future meetings (at *The Netherwood Hotel, Grange-over-Sands LA11 7DB unless stated otherwise*):

- Mar 15*** *Electrical safety at work*,
Steve Dunstan, Safety and Training Consultant, FAS Consultancy & Training, Morecambe
- Apr 19** *HSE update*, Steven Boyd, HM Inspector of H & S, HSE Carlisle &
AGM, Chairman, Martin Fishwick
- May 16*** *Fire Safety and the use of fire extinguishers (including a practical demonstration outside; so come prepared!)*
Andrew Lee, Director, National Fire Training, Kendal.
- Followed by Committee meeting

HSE related information:

An overview: COSHH 2002: <http://www.hse.gov.uk/coshh/index.htm>

COSHH basics: <http://www.hse.gov.uk/coshh/basics.htm>

REACH explained: <http://www.hse.gov.uk/reach/about.htm>

REACH definitions: <http://www.hse.gov.uk/reach/definitions.htm>

New from HSE:

Changes to reporting injuries and dangerous occurrences from 6 April 2012:

<http://www.hse.gov.uk/riddor/reporting-change.htm>

Example risk assessments for small businesses: <http://www.hse.gov.uk/risk/casestudies/index.htm>

Current HSE consultations

CD238: proposals to revoke seven: statutory instruments

This consultative document seeks views on the *Health and Safety Executive's* proposals to revoke six *Regulations* and one *Order* that have been identified as being redundant or that have been overtaken by more up-to-date Regulations.

Consultation began on 23 January 2012 and ends on 12 March 2012.

Joint South Cumbria Programme Cards for 2012

Are now be available for collection at our monthly meetings, or, if you would like to receive an electronic version please ask Val Kennedy to e-mail one to you. Please take several and pass them on to other organisations who might be interested in our meetings.

Joint South Cumbria IOSH District & SCOHSG committee 2012/13

Committee elections will take place at the April AGM.

If you think that you could help the joint South Cumbria committee:

- Provide a useful, informative forum for discussing and learning about H & S issues and
- Help at the 2012 seminar and
- Develop the 2013 programme

Please contact one of the current committee members who will be happy to help you.

We would welcome new committee members, especially (but not exclusively), if you can offer some secretarial help and/or have potential speaker contacts! There are six committee meetings a year after the main meeting (see programme card). Committee members are asked to commit to attending at least four of these.

Nomination forms will be available at the February and March meetings and circulated with the February minutes; completed nomination forms should be returned to: Magda Trafas, Membership Secretary, South Cumbria IOSH District & SCOHSG (contact details on nomination form).

SCOHSG Membership certificates:

If your organisation has renewed its membership and you have not collected your certificate please collect it from Val Kennedy at the next Netherwood meeting or e-mail her if you would like your organisation's certificate to be posted to you.

SCOHSG Membership (for companies and organisations); membership renewal for 2012/13 due from April 2012:

SCOHSG membership entitles companies and organisations to send representatives to the joint meetings with South Cumbria IOSH District for H & S training and to meet H & S professionals for informal discussion. If your company would like to join SCOHSG please send your membership subscription to Magda Trafas, Membership Secretary. Membership is open to organisations (not individuals); further information www.communicate.co.uk/lakes/SCOHSG