Dragon, Karen E. (CDC/NIOSH/EID)

From:
Sent: Thursday, June 26, 2008 7:17 AM
To: Miller, Diane M. (CDC/NIOSH/EID)
Cc: Lentz, Thomas J. (CDC/NIOSH/EID)
Subject: Docket Number NIOSH-138
Attachments: NIOSH review on Control banding - - 23 June 2008.doc; - CV - 23 June 2008.DOC

Diane,

I have attached my comments on the draft NIOSH document 'Qualitative Risk Characterization and Management of Occupational Hazards (Control banding [CB]): A Literature Review and Critical Analysis.'

I also attach a copy of my CV, as requested.

I will send a hard copy of these documents and a signed Conflict of Interest form by conventional mail.

Regards,

Docket Number NIOSH-138

Diane Miller
NIOSH Docket Office
4676 Columbia Parkway
MS C-32
Cincinnati
Ohio 45226

26th June 2008

Dear Diane,

Qualitative Risk Characterization and Management of Occupational Hazards (Control banding [CB]): A Literature Review and Critical Analysis.

I wish to make the following comments on this document:

Overall

This is an excellent document - comprehensive and balanced. It will be a valuable resource to others interested in practical, qualitative approaches to risk management.

Throughout the document, the Health and Safety Executive is referred to as 'UK HSE'. HSE has jurisdiction in Great Britain (i.e. England, Scotland and Wales), but not Northern Ireland, so it should not be referred to as UK HSE. I suggest you use the term 'HSE in Great Britain' or just 'HSE'. The correct term is used on page 132, line 8 of this document.

A summary of the COSHH essential approach can be found in 'Risk management measures for chemicals: the "COSHH essentials" approach by A.N.I. Garrod, P.G. Evans and C.W. Davy. **Journal of Exposure Science and Environmental Epidemiology (2007) 00**, 1-7. The paper examines COSHH essentials as a suitable vehicle for communication risk management measures and would be an important reference for this review.

The Australian Safety and Compensation Council Department of Employment and Workplace Relations carried out a detailed evaluation of the use Printing essentials (DEWR research file WR07/12041 Occupational Health & Safety - Research - Development of Essential Chemical Controls for Australian Printers - 2007). Using the findings of the evaluation, a web-base package Essential Chemical Controls for Australian Printers has been developed. Contact - Howard Morris.

The current system (with acknowledgements to HSE) is posted at:
http://www.ascc.gov.au/ascc/HealthSafety/OHSstandards/EssentialChemicalControls/EssentialChemicalControlsforAustralianPrinters.htm

Detailed comments are made below.

Content

Page xvi, Line 13
The term 'COSHH essentials' is a brand name; it is not an abbreviation for Control of Substances Hazardous the Health essentials. I suggest re-wording this section:
'COSHH essentials: A CB model developed by the British Health and Safety Executive (HSE) to assist small- and medium-sized enterprises in complying with Control of Substances Hazardous to Health (COSHH) Regulations. The COSHH essentials guidance is available in both a published document and in a Web-based model known as *e*COSHH essentials.'

Page 3, line 7
The name of this regulation is the '**R**egistration, **E**valuation, **A**uthorisation and Restriction of **Ch**emicals' (REACH).

Page 5: Origins of CB for chemical agents.
It would be helpful to comment "For example, occupational exposure limits act as 'control band' boundaries. OELs lie at 'preferred values' rather than scientifically precise values. They are not a hard and fast line between safe and unsafe. Like all control bands, there is a certain 'fragility' of scientific rigour at the boundaries."

Page 7, Abbreviation
Need to add 'ICE'

Page 9, line 5
The COSHH regulations no longer have Maximum Exposure Limits (MELs) and Occupational Exposure Standards (OESs). Occupational exposure limits are called Workplace Exposure Limits (WELs).

Page 9, line 10
In the current edition of the COSHH ACoP, the explanation of adequate control for substances without a WEL now refers to the principles of good practice and is located in paragraph 129.

Page 14, line 3
There is no 'maximum dust concentration' in the COSHH regulations. The level of 10 mg/m^3 is a threshold of dust concentration. At or above this level, the dust (if not specified elsewhere) is defined as a substance hazardous to health and COSHH applies.

Page 21
In the box, replace 'UK HSE' with 'Annals of Occupational Hygiene'.

Page 23, line 10
I suggest adding 'welding' after 'woodworking' as it is mentioned earlier in that section (page 2, line 17).

Page 26, Table 5
Add a note 'Note: COSHH essentials is regularly reviewed to reflect any changes to R-phrases'.

Page 27, line 8
'dipropylene' is spelled incorrectly.

Page 29, line 8
'engineering containment' should read 'engineering control'.

Page 43, line 11
Inside the box, last sentence, I suggest adding 'process-generated hazards such as' before 'airborne crystalline silica'.

Page 50, lines 3, 5 and 10
The bullets should be 1., 2., and 3. Not 4., 5., and 6.

Page 55, line 9
'tripartite' is spelled incorrectly.

Page 60, line 5
'Vickers' is spelled incorrectly.

Page 67-68
It would be very useful to include a statement such as "Control Banding schemes should inform Industrial Hygienists but not constrain their professional decisions."

Page 78 lines 10, 11
The example in brackets needs rewriting to clarify the meaning.

Page 78, line 22
Add 'to' after 'likely'.

Page 80 lines 1-2
I suggest redraft: "Generic CB strategies such as COSHH essentials select control recommendations based on hazard and exposure ranges using general ventilation as a minimum: this system is not intended as a predictive exposure model." I think that Stoffenmanager is more clearly an exposure predictive system.

Page 80 line 17
Recommend replacing "likely" with "potential". Rarely are there sufficient data to be able to show log-normality.

Page 80 line 22
The substances are corrosive, not irritant. Both are classified R35 (causes severe burns) by the EU.

Page 82 line 9
Suppliers don't quote dustiness, and rarely quote volatility (vapour pressure at a quoted temperature). They should quote boiling point for liquid substances and preparations. The user assesses dustiness subjectively, and we need better terms to discriminate low, medium and high dustiness.

Page 82 line 10
Add GHS H-statements.

Page 82 line 12-13.
Suggest redraft: "Construction of model to combine quantity in use, dustiness/volatility and other determinants, to predict the exposure band."

Page 94, line 16
Add Great Britain to the list of representatives.

Page 111 line 9
Replace 'silica' with 'asbestos'.

Page 112 line 9
Propose adding eg, 'and process-related emissions such as fume' before 'hazard control guidance'.

Page 117, line 25 to 27
This should be a single reference 'HSE [2005]. Control of substances hazardous to health, Fifth Ed. The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved Code of Practice and Guidance. HSE Books, Sudbury UK. ISBN 0-7176-2981-3

Conclusions

The conclusions are a fair reflection of the salient features of the control banding debate.

I hope these comments are helpful. Please let me know if I can assist further.

Yours sincerely,