



NEW ZEALAND
OCCUPATIONAL
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Health and Environment at Work

The need for solutions

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Health & Environment at Work – the need for solutions

The International Occupational Hygiene Association (IOHA) defines **Occupational Hygiene**:

The discipline of **anticipating, recognizing, evaluating** and **controlling** health hazards in the working environment with the objective of protecting worker health and well-being and safeguarding the community at large.

Occ hygienists = (occ) health risk managers

Health & Environment at Work – the need for solutions

NZ legislation + occ hygiene

HSE Act- Section 10 - Significant hazards to employees to be minimised (where elimination and isolation not practicable):
Section 10(2)c – The employer shall take steps to monitor the employees exposure to the hazard

&

HSNO Act – Reg 29(4) Class 6, 8, 9 controls - The person in charge of a place of work must ensure that a person is not exposed to a concentration of the substance that exceeds the workplace exposure standard for that substance

Occupational hygienists in NZ – where are they?

About 20 or so people practicing occ hygiene in NZ – from fulltime professional level to occasional 'exposure monitoring' as an addition to other functions

Employed

- Large, international companies, high hazard sites

Consulting

- Large, international companies. Rarely do SMEs use hygienists

Research & teaching

- CPHR, Massey, Otago

Why doesn't DoL do it? – Employers duty

Health & Environment at Work – the need for **solutions**

- (Exposure assessment – doesn't focus on providing solutions)
- Risk assessment – the result drives the solutions (management)
 1. Solutions must be **effective** and **practicable**
 2. Solutions must be **used**

Health & Environment at Work – the need for solutions

Solutions must be effective and practicable

- Professional abilities – OH plan, professionalising sector. Will it make a difference?
- Experience – occ hyg gen an ageing WF, experience on site with experienced people v imp

Solutions must be used

How much influence do hygienists really have? Aus study 2010* showed OH professionals not being strategically influential with senior HS management. Why? – sexism?, operational focus rather than strategic, hygienists communicate with line managers rather than senior, eduction/certification/management training, size of organisation

*Pryor P & Sawyer N: OHS Professionals: Technicians or strategic advisors? J Health safe Environ 2010 26(1)

Health & Environment at Work – the need for solutions

1. **Control banding**
2. **Generalising and widening skill base** - incl env health, trans disciplinary approach, develop management skills
3. **Occ hygiene data** – get it. Currently not. Great that CPHR doing occ epi + occ exposure e.g. wood dust
4. **Small business support** - Dame Carol Black – business lead health and well being consultancy, OSHA
5. **Occ hygienists more visible** – self promotion
6. Part of the **influence** to change 'ees and 'ers **attitude** towards their and others health

Health risk assessment

“Health risk assessment is the process wherein toxicology data from animal studies and human epidemiology are evaluated, a mathematical formula is applied to predict the response at low doses, and then information about the degree of exposure to the disease agent is quantitatively used to predict the likelihood that a particular adverse response will be seen in a specific human population”

Source: Paustenbach, D.J. Health risk assessment and the practice of industrial hygiene Modern Industrial Hygiene ACGIH Press 2003

Risk assessment

1. Hazard identification

(linking injury or disease to an agent)

2. Dose-response assessment

(relationship between dose and response)

3. Exposure assessment

(magnitude and duration of exposure)

4. Risk characterisation

(integrate the above info to determine the likelihood that adverse effects will be experienced)

Source: Paustenbach, D.J. Health risk assessment and the practice of industrial hygiene Modern Industrial Hygiene ACGIH Press 2003