

Why you should be improving occupational hygiene...now

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What is an occupational hygienist?



We are qualified, experienced individuals who are employed to assess and improve the interaction between a man and his working environment

Occupational safety



Occupational hygiene



Occupational health



Why control health hazards?



- Moral
 - Caring company
 - Looking after your co-workers
- Economic
 - Claims culture (UK & USA)
 - Other hidden costs to the company
- Legal
 - Compliance with the law

- EC Directives
 - As part of our membership of the European Economic Community
 - Must be turned into regulations within member states
 - E.g. Physical Agents Directive
- UK Law – Health & Safety at Work Act (1974)
 - Our only law on health and safety in the UK
 - Known as the enabling act
 - Enforced by the HSE (Health & Safety Executive)
- UK Regulations
 - Specific regulations for specific hazards
 - ACoP (Approved Codes of Practice) our main guidance for compliance with the law e.g. Control of Noise at Work Regulations (2005)



UK law must be enforced by line managers

- Importance of the line managerial role
- Allocate individual job roles
- Responsible for job design
- Communication - both 'upward' and 'downward' flows
- Action planning
- Often be the first port of call for employees with problems

Regulations & ACoPs



- **Chemical**

- Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended)
- Control of Lead at Work Regulations 2002
- Control of Asbestos Regulations 2006

- **Physical**

- The Control of Noise at Work Regulations 2005
- The Control of Vibration at Work Regulations 2005.
- Ionising Radiations Regulations 1999

- **Ergonomic**

- Manual Handling Operations Regulations 1992 (as amended)
- Management of Health and Safety at Work Regulations 1999
- Health and Safety (Display Screen Equipment) Regulations 1992

- **Biological**

- The control of legionella bacteria in water systems (ACoP) 2000.

- Reduce sickness absence and health exposures
 - Achieve <2.7% sickness absence rate
 - Engineer solutions in each businesses Top 5 exposures – not just use of PPE
- Delivered via the OGSM route (Objective Goal Strategy Measure)
- Designed so each business can formulate a plan to improve their level of control
- Applied in different ways in different businesses but it will drive improvement across the company

- Beginning a process assessing health hazards on each of the 40 sites
- Using a hygiene matrix developed from Long Products
- Looks at health hazards and job types
- Designed to survey a site and show areas of risk
- Can be use to quantify as well as qualify
- Create an action plan
- Used to benchmark and as a base for future reviews

OH Matrix example



Microsoft Excel - Dean Lawson matrix NBW 052011.xls

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Arial 4 B I U

100%

I31 *For example: Lead, manganese, zinc

	A	B	C	D	E	F	G	H	I	J	
1			Physical								
2			Water	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers
3		High Risk	High Risk (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	
4		Medium	High Risk (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	
5		Low	High Risk (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	High Exposure (H) (E) (H)	
6		Patterns of Exposure	Equip	No Equip	No Equip	No Equip	No Equip	Equip	No Equip	No Equip	
7		Management of Exposure	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	Water in Heat Exchangers	
8	1.1	Exposure	1								
9	1.2	Exposure	1								
10	1.3	Exposure	1								
11	1.4	Exposure	1								
12	1.5	Exposure	1								
13	1.6	Exposure	1								
14	1.7	Exposure	1								
15	1.8	Exposure	1								
16	1.9	Exposure	1								
17	2.0	Exposure	1								
18	2.1	Exposure	1								
19	2.2	Exposure	1								
20	2.3	Exposure	1								
21	2.4	Exposure	1								
22	2.5	Exposure	1								
23	2.6	Exposure	1								
24	2.7	Exposure	1								
25	2.8	Exposure	1								
26	2.9	Exposure	1								
27	3.0	Exposure	1								
28	3.1	Exposure	1								
29	3.2	Exposure	1								
30	3.3	Exposure	1								
31	3.4	Exposure	1								
32	3.5	Exposure	1								
33	3.6	Exposure	1								
34	3.7	Exposure	1								
35	3.8	Exposure	1								
36	3.9	Exposure	1								
37	4.0	Exposure	1								
38	4.1	Exposure	1								
39	4.2	Exposure	1								
40	4.3	Exposure	1								
41	4.4	Exposure	1								
42	4.5	Exposure	1								
43	4.6	Exposure	1								
44	4.7	Exposure	1								
45	4.8	Exposure	1								
46	4.9	Exposure	1								
47	5.0	Exposure	1								
48	5.1	Exposure	1								
49	5.2	Exposure	1								
50	5.3	Exposure	1								
51	5.4	Exposure	1								
52	5.5	Exposure	1								
53	5.6	Exposure	1								
54	5.7	Exposure	1								
55	5.8	Exposure	1								
56	5.9	Exposure	1								
57	6.0	Exposure	1								
58	6.1	Exposure	1								
59	6.2	Exposure	1								
60	6.3	Exposure	1								
61	6.4	Exposure	1								
62	6.5	Exposure	1								
63	6.6	Exposure	1								
64	6.7	Exposure	1								
65	6.8	Exposure	1								
66	6.9	Exposure	1								
67	7.0	Exposure	1								
68	7.1	Exposure	1								
69	7.2	Exposure	1								
70	7.3	Exposure	1								
71	7.4	Exposure	1								
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75	7.8	Exposure	1								
76	7.9	Exposure	1								
77	8.0	Exposure	1								
78	8.1	Exposure	1								
79	8.2	Exposure	1								
80	8.3	Exposure	1								
81	8.4	Exposure	1								
82	8.5	Exposure	1								
83	8.6	Exposure	1								
84	8.7	Exposure	1								
85	8.8	Exposure	1								
86	8.9	Exposure	1								
87	9.0	Exposure	1								
88	9.1	Exposure	1								
89	9.2	Exposure	1								
90	9.3	Exposure	1								
91	9.4	Exposure	1								
92	9.5	Exposure	1								
93	9.6	Exposure	1								
94	9.7	Exposure	1								
95	9.8	Exposure	1								
96	9.9	Exposure	1								
97	10.0	Exposure	1								

Ready

start TempData (D:) Microsoft Powe... Legionnaires' d... Vodafone Mobil... Microsoft Excel... EN 20:48

Identification and assessment process

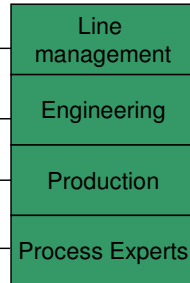
Health & Hygiene Data

Health data

Hygiene survey data

Data from other businesses

Works Area



Analysis and Assessment

Further sampling reqd

Number of persons potentially exposed above OELs

Burdening

Agent	Location / Activity
Noise	All Areas
Dust	All Areas
Welding Fumes	Maintenance
Burning Fumes	Maintenance
Whole Body Vibration	Harbour Unloaders / Sinter Plant Production Crew

Central Engineering Workshops

Agent	Location / Activity
Noise	All Areas
Welding Fumes	Fitting and Fabrication
DEEE	Locomotive Movement
Dust and Fumes	Maintenance
Hand Arm Vibration	Maintenance

Internal Logistics

Agent	Location / Activity
Noise	Locomotive Movements

Energy Production

Agent	Location / Activity
Noise	All Areas
Chlorine Gas	Chlorination Of Cooling Towers

Steel and Slab

Agent	Location / Activity
Noise	All Areas
Thermal Environment	Steelmaking, Concast, Refractory Repair and Cranes
Dust and Fumes	Production / Maintenance all areas
Manganese	Raw Materials Bay and Primary Steel Making
Lime Dust	Steel Plant Cleaning

Iron Making

Agent	Location / Activity
Noise	All Areas
SO ₂	Cast House
Coal Dust	Granulated Coal Injection Plant

Hot Roll Products

Agent	Location / Activity
Noise	All Areas
Thermal Environment	All Areas
Dust and Fumes	All Areas
Whole Body Vibrations	Cranes

Cold Roll Products

Agent	Location / Activity
Noise	All Areas
Dust and Fumes	Maintenance
Kaowool RCF	Reheat Furnaces
Whole Body Vibrations	Cranes

Coke Making

Agent	Location / Activity
PAH	Coke Oven Battery Top
Noise	By Products
Ammonia	By Products
Coal Dust	Coal Stockyard

Port Talbot - Current Status of ExCo Top 5



*CorusStrip Products UK
Industrial Hygiene and Workplace Assessment
ExCo "Top 5" Action Plan
Review Owner: Carl Preece*

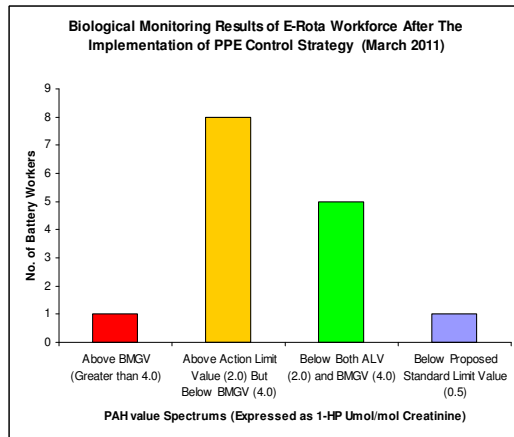
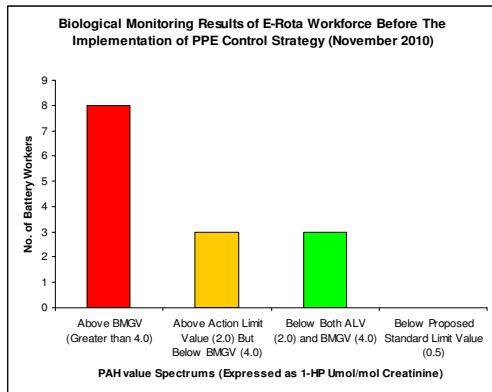
ExCo Priority Number	Plant	Identified Agents	Identification of Affected Workforce	Assessment Plan Agreed Upon	Assessment (Observations and physical Measurement)	Recommendations (Via Report to Area and Feedback Sessions)	Formulation of Improvement Action Plan	Implementation of Improvement Action Plan
1	Coke Ovens	Polycyclic Aromatic Hydrocarbons						
2	Blast Furnace (4 & 5 Cast House Floor)	Sulphur Dioxide						
3	Granulated Coal Injection Plant	Coal Dust						
4	Raw Materials Bay	Manganese Dust						
5	B.O.S. Plant	Lime Dust						

ExCo Top 5 Quarterly Report Table



Quarter:			One				Commentary
Agent	Location of Concern	Area within Strip Products	Improvement Plan and Respective Actions				
			Planned	Completed	%	Status	
PAH's	Battery Top	M.C.O.					
SO ₂	Cast House	Iron Making					
Coal Dust	Granulated Coal Injection	Iron Making					
Mn	Raw Materials Bay	Steel and Slab					
CaO	Bos Plant Cleaners	Steel and Slab					
Tata Steel Strip Products		Total					

2010 / 2011 Summary of Data



In summary....so why improve occupational hygiene, now?



- Our obligations to reduce employee exposures are driven by moral, economic and legal reasons
- Occupational hygiene fulfils a company moral, legal and economic duties to it's employees
- TSE goals include occupational hygiene as a main priority
- Maintain good, long-term, employee health

It's never too late to develop an occupational hygiene programme, because immediate changes can take a long period to show improvements in health...and we need to stay one step ahead of the game!