Health Risks in the Offshore Industry

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Helping GB Work Well 2016

The six strategic themes

- **Acting together**: Promoting broader ownership of health and safety in Great Britain
- **Tackling ill health**: Highlighting and tackling the costs of work-related ill health
- **Managing risk well**: Simplifying risk management and helping business to grow
- **Supporting small employers**: Giving SMEs simple advice so they know what they have to do
- **Keeping pace with change**: Anticipating and tackling new health and safety challenges
- **Sharing our success**: Promoting the benefits of Great Britain’s world-class health and safety system
Definition of Occupational Health

- *a state of mental, physical and social well-being*” (WHO, 1970)
- Initial and continued fitness for the job
  - Offshore medicals, fitness for work, health surveillance, health promotion
- Protection from health hazards
  - Identification, Assessment and Control of physical, chemical and biological health risks.
- Mitigation
  - First-Aid/Emergency treatment
  - Workplace adjustments, rehabilitation
Key figures for Great Britain (2014/15)

- **1.2 million** working people suffering from a work-related illness (0.5 million new conditions)
- **2,538** mesothelioma deaths due to past asbestos exposures (2013)
- **142** workers killed at work
- **76,000** other injuries to employees reported under RIDDOR
- **611,000** injuries occurred at work according to the Labour Force Survey
- **27.3 million** working days lost due to work-related illness and workplace injury
- **£14.3 billion** estimated cost of injuries and ill health from current working conditions (2013/14)
Work-Related Ill Health and Occupational Disease

Source: Labour Force Survey
Types of work-related ill health

**Common health** conditions which can be caused or made worse by work

- Stress: 234000 (44000)
- Musculoskeletal disorders: 169000 (553000)
- Skin disease: 1050
- Asthma: 132

**Long-latency** conditions which can be caused by previous work activity and where symptoms can appear many years after exposure

- Asbestos-related disease: 5000 (M, L, A)
- Cancers: 15000
- Respiratory disease, eg COPD: Deaths 4000
- Vibration-related disease: 16000/12 IIDB (3000000) (1998)

Existing cases: 30000

Deaths: 8000 (E)

New Cases: (13500)

THOR 2014

1050

THOR 2014

132
## UK Offshore Industry (RIDDOR)

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Chickenpox (Legionella, Meningitis, measles, rubella, malaria, hepatitis, scarlet fever, shingles, mumps)

Long latency conditions eg CoPD, asthma, cancer?

Noise induced hearing loss – not reportable
Norwegian Offshore Industry

- **Musculoskeletal Disease - 3131 reports (47%)**
  - Upper limb (53%), back (20%), lower limb (16%)
  - Maintenance, catering
- **Noise induced hearing loss - 709 reports (25%)**
  - Age group 50-59 years
  - Mechanics, painters, electricians, process technicians, roughnecks
- **Dermatitis - 1200 reports (20%)**
  - Drilling muds and drillers
- **Others conditions**
  - Respiratory irritation, Asthma, HAVs, Psychosocial
Danish Offshore Industry (3000)

- **Ill Health Reports 2010**
  - Musculoskeletal – 13
  - Hearing injuries – 5
  - Hand arm vibration - 1
  - Asthma – 1
  - Narcosis – 1
Operational Intelligence

• **Noise (Inspection)**
  – Approx. 10,000 offshore workers exposed above UEAV (85 dB)
  – High noise exposures result in significant risk of NIHL (also communication and sleep)
  – Norwegian data identifies control of noise as a significant issue
  – Emphasis on assessment and reliance on hearing protection
  – Lack of health surveillance

• **Vibration (Inspection)**
  – Approx. 5,000 offshore workers exposed above AEV (2.5 m/s²)
  – Prolonged regular exposure to vibration from hand held tools result in significant risk of hand arm vibration syndrome
  – Increased fabric maintenance and decommissioning
  – Tool maintenance/replacement/use, health surveillance
Operational Intelligence

• **Hazardous Substances (Guidance)**
  - Skin disease – most commonly reported condition
    - Drilling muds, paints, solvents, injection chemicals, cleaning agents
  - Respiratory disease – cases resulting from acute exposure
    - Hydrogen Sulphide, injection chemicals, paints, welding fume, drilling mud mist/vapours, diesel exhaust
  - Cancer
    - Asbestos (Mesothelioma), Benzene (Leukaemia),
    - Norwegian LOL Study (Brain tumours and Renal cancer).
  - Over reliance on PPE/RPE

• **Asbestos (licensed work)**
  - Many installations have asbestos
  - Increased fabric maintenance and decommissioning - potential for increased exposure
  - Training and awareness.
Operational Intelligence

- **Muscospkeletal disease (Guidance)**
  - Main cause of ill health offshore
  - Long-term absence and working days lost
  - Heavy loads, repetitive work, poor posture

- **Food and water safety (Inspection)**
  - Potential for large outbreaks
  - Down manning/shutdown
  - Food Poisoning, legionella ------ death
  - Galley facilities (structure/fittings), Raw meat handling
  - Maintenance of water system
Offshore Labour Force Survey

- Survey of households (44,000/Q)
- Office of National Statistics (ONS)
- HSE Modules
  - Workplace Injury Survey
  - Self-reported work-related illness (SWI) survey
- Self reporting
  - True extent of work related illness?
- Energy Institute - Health Technical Committee
  - Labour Force Survey of offshore workforce
    - Provide a representative picture of work-related ill-health offshore by a range of demographic and job related factors.
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Final Thought

Occupational Health is not an intellectual exercise to keep us in work. It is a matter of life and ill-health/death; and it is the sum of our individual contributions to occupational health management that determine whether the people we work with remain healthy or suffer ill-health/die.

With apologies to:
Brian Appleton (ICI), Assessor to the Public Inquiry on Piper Alpha