

Different
Individuals
Valuing
Each other
Regardless of
Skin
Intellect
Talents or
Years

Education
religion or belief
values
beliefs
access
policy
equal
empowerment
disability
gender
age
youth work
celebrate
status
poverty
sexual orientation
discrimination
anti-oppressive practice
society
race
fair
opportunities
class
justice
difference
diversity



Risk Assessment Principles

Claire Dickinson &
Sharon Mawhood

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Coverage

- Introduction – Legislation, Rehabilitation Guidance
- Basic risk assessment principles
- Present a basic risk assessment process
- Ballast dust risk assessment : through the lens of equality, diversity and ageing
- Stress risk assessment : through the lens of equality, diversity and ageing
- Questions

Equality Act, 2010

It is against the law to discriminate against anyone because of:

- Age ✓
- being or becoming a transsexual person
- being married or in a civil partnership
- being pregnant or having a child
- Disability ✓ “ ... a physical or mental impairment that has a substantial and long-term negative effect on your ability to do normal daily activities”
- race including colour, nationality, ethnic or national origin
- religion, belief or lack of religion/belief
- Sex ✓
- sexual orientation

These are called ‘protected characteristics’

Equality Act, 2010

You're protected from discrimination in these situations:

- at work
- in education
- as a consumer
- when using public services
- when buying or renting property
- as a member or guest of a private club or association

- **Reasonable adjustments**

Long term recovery



- Best for integration when employee: employer work in partnership
 - Important role for union appointed H&S Representatives
- Need to consider more than employee's health condition but the organisational level factor and individual/local factors
- Communication and co-operation between all parties results in faster recovery, less recurrence and less time off work

Assessments of needs : reasonable adjustments

- Ageing – what are the effects and risks ?
- Disability – returning to work following long term absence (physical or mental) - what do we need to consider in a risk assessment ?
- Gender - Men/Women - what are the differences and risks ?

Work adjustment assessment form		
Location and work assessed		
Name of employee		
Name of manager carrying out the assessment		
Potential barriers to working <i>See the guidance tables, as well as the information provided by the occupational health service and employee</i>		
Health and safety concerns <i>Indicate what the risks are and who is at risk – use the guidance tables on the next three pages, as well as the information provided by the occupational health service or employee</i>		
What measures are necessary to help the employee return to work and to minimise risks? <i>List the adjustments that can be put into place to address potential barriers and concerns</i>	Priority High, medium, low	
List any barriers or concerns you've not been able to resolve through reasonable adjustments (seek specialist advice, as required)	Priority High, medium, low	
Taking the above into account, is the work compatible with the employee's condition or impairment? <input type="checkbox"/> Yes <input type="checkbox"/> Yes, once agreed action has been taken <input type="checkbox"/> Possibly, but more advice is needed <input type="checkbox"/> No <i>If no, give reasons:</i>		
Agreed action	By who?	By when?
Signatures		
Manager:	Employee:	
Date of assessment	Date of review	

Flip-charts: Ageing, Disability, Gender

What do we need to consider in a health risk assessment to ensure equality and fairness ?

- Ageing – what are the effects and risks ?
- Disability – returning to work following long term absence (physical or mental) - what do we need to consider in a risk assessment ?
- Gender - what are the differences and the risks ?
 - Top Tip – there are positives too !

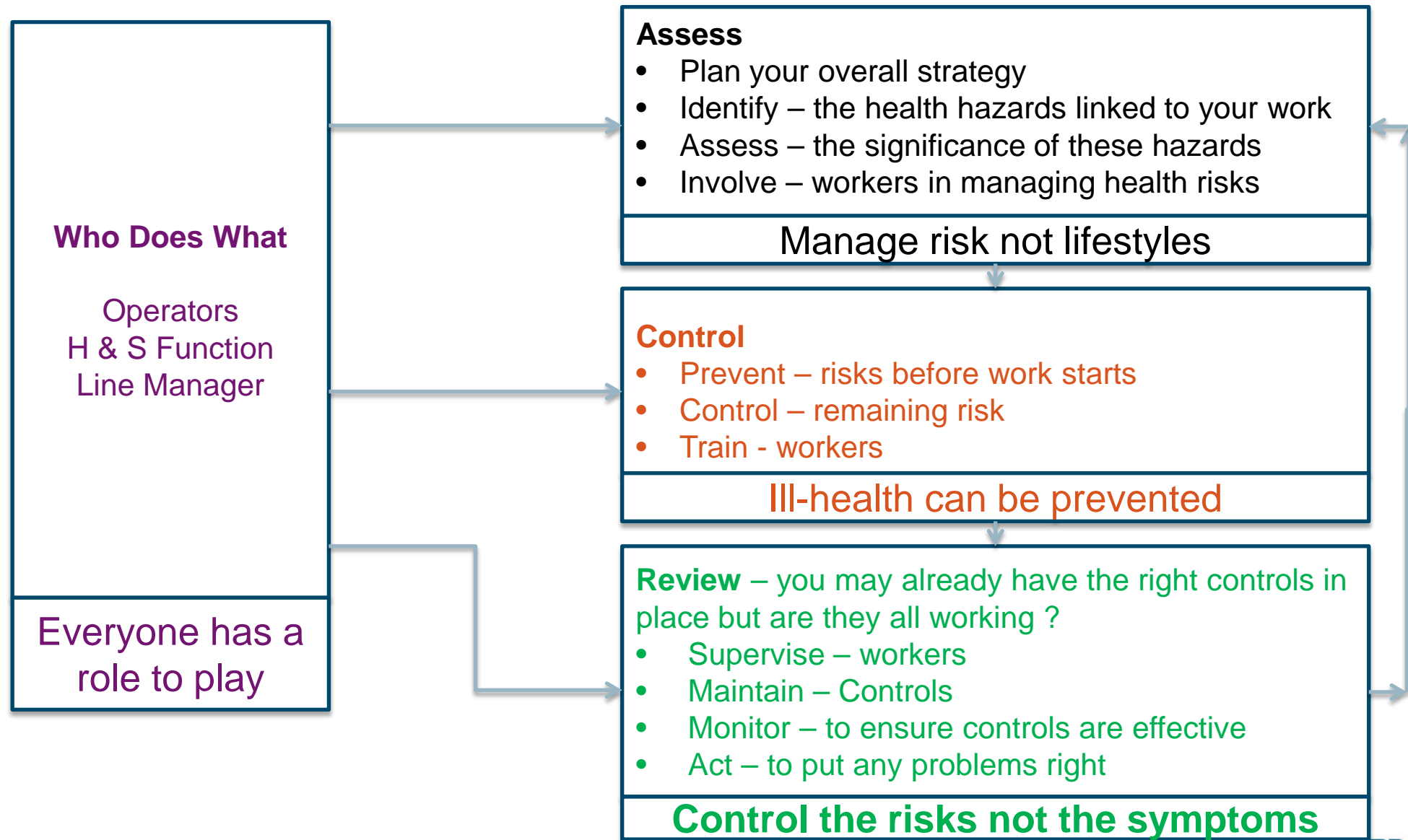
Intent of risk assessment

- To be systematic about the way you prevent harm
- To define what can do you harm and what can avoid or limit that harm: hazard identification and control
- Legal requirement (Management of H&S at Work Regs1999, Reg 3(1))
- Written down (?)....not always but usually. If a Protected Characteristic write it down.

Common Principles

- Ill-health can be prevented
- Treat health like safety – follow Assess, Control, Review steps
- Everyone has a role to play – take ownership for your part of the process
- Control the risk, not the symptoms – monitoring and health surveillance programmes are not enough on their own. First priority is to stop people being exposed in the first place
- Manage risk, not lifestyles – the law requires steps to be taken to prevent or adequately control health risks

Risk assessment process



Assess

1. Assess

Identify		
	Key tasks involved	
	Key hazards to health	
	Who might be harmed	
Assess	Likelihood and severity of harm	

Have the
risks **really**
been
assessed?



Have the risks really been assessed?

Is this really a risk assessment?

Material/Process GENERIC DUST CONTAINING SILICA Supplier * Address	Keyword Dust Date 17/05/2011 Contents Respirable Silica,	MEDIUM HAZARD SOLID Exp Limit Respirable Silica 0.1mg/m ³ BHTWA WEL	Hazards
Health Risks HARMFUL: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION MAY CAUSE ILL HEALTH IF INGESTED IN QUANTITY MAY CAUSE EYE IRRITATION SKIN - IRRITATION AND DERMATITIS MAY RESULT FROM PROLONGED CONTACT Do not breathe dust When using do not eat, drink or smoke Avoid contact with skin and eyes		Risk Assessment 8 Method: General Exposure Area: Inside Poorly Ventilated Exposure Time: All day	
Spillage VENTILATE AREA DO NOT ALLOW UNCONTROLLED SPILLAGES TO ENTER MAINS DRAIN/SEWERS/WATER COURSES WEAR HEAVY DUTY GLOVES WEAR SUITABLE EYE PROTECTION IF LARGE QUANTITIES OF DUST GENERATED WEAR RPE WITH PARTICULATE FILTER P IF SIGNIFICANT DUST GENERATED WEAR RPE WITH PROTECTIVE CLOTHING IF WHOLE CONTAINER IS SPILT WEAR PROTECTIVE CLOTHING IF WHOLE CONTAINER IS SPILT DO NOT DRY SWEEP/EITHER SUPPRESS DUST OR CLEAR USING HEPA VACUUM COLLECT INTO A CONTAINER, CLOSE LID DISPOSE OF USING SUITABLE PROCEDURE OR SEEK L.A. GUIDANCE		Activity Comments Use RPE as interim pending monitoring or for one-off tasks. If LEV used, monitor to verify it controls to below the OEL	
First Aid INHALATION - REMOVE TO FRESH AIR AND REST AFTER A SIGNIFICANT EXPOSURE CALL FOR MEDICAL ASSISTANCE IMMEDIATELY INGESTION - DO NOT INDUCE VOMITING IF FEELING UNWELL CONSULT YOUR DOCTOR IMMEDIATELY EYE - IRRIGATE WITH WATER FOR AT LEAST 15 MINUTES SKIN - WASH WITH SOAP/CLEANSER AND RINSE WITH WATER IF IRRITATION PERSISTS THEN CONSULT A DOCTOR		Control Measures <div> COVER SKIN KEEP SKIN COVERED </div> <div> PROTECT HANDS HEAVY DUTY </div> <div> BEFORE EYE PROTECTION IF CONTACT LIKELY </div> <div> DILUTION VENTILATION AND </div> <div> VENTILATION LEV OR </div> <div> DISPOSABLE EN149 FFP2 </div> <div> NO SMOGGIN EATING OR DRINKING </div> <div> WASH AFTER CONTACT </div> <div> CHANGING IF HEAVILY SOILED </div> <div> VACUUM UP DUSTS </div> <div> CLOSE CONTAINER AFTER USE </div> <div> HARMFUL DISPOSAL </div>	
Fire ISOLATED SMALL SCALE FIRE: USE EXTINGUISHERS SUITABLE FOR OTHER MATERIALS INVOLVED IN FIRE LARGE FIRE: EVACUATE AREA, CALL FIRE BRIGADE OR FOLLOW SITE PROCEDURE WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TOXIC FUMES ARE PRODUCED WHEN SUBSTANCE IS INVOLVED IN A FIRE		Considerations <div> MAINTENANCE </div> <div> MONITOR EXPOSURE LEVEL </div>	
Safety Data Sheet Reference * This assessment was compiled by Sygol Limited from supplier's safety data sheets. Safety in the use of assessments is the responsibility of the subscriber.		Details If using engineering controls/non disposable PPE ensure maintenance (reg 9) Consider monitoring (COSHH reg 10)	
		Printed 18/08/2011	

Have the risks really been assessed?

- All significant hazards identified
 - Routine and non routine
 - Task specific (a data sheet is not enough)
 - Systematic – structured and methodical
 - Competent assessors
 - Informed by appropriate sources of information (data sheets, employees, TU Reps, exposure monitoring data)
 - Recorded and Reviewed

Control

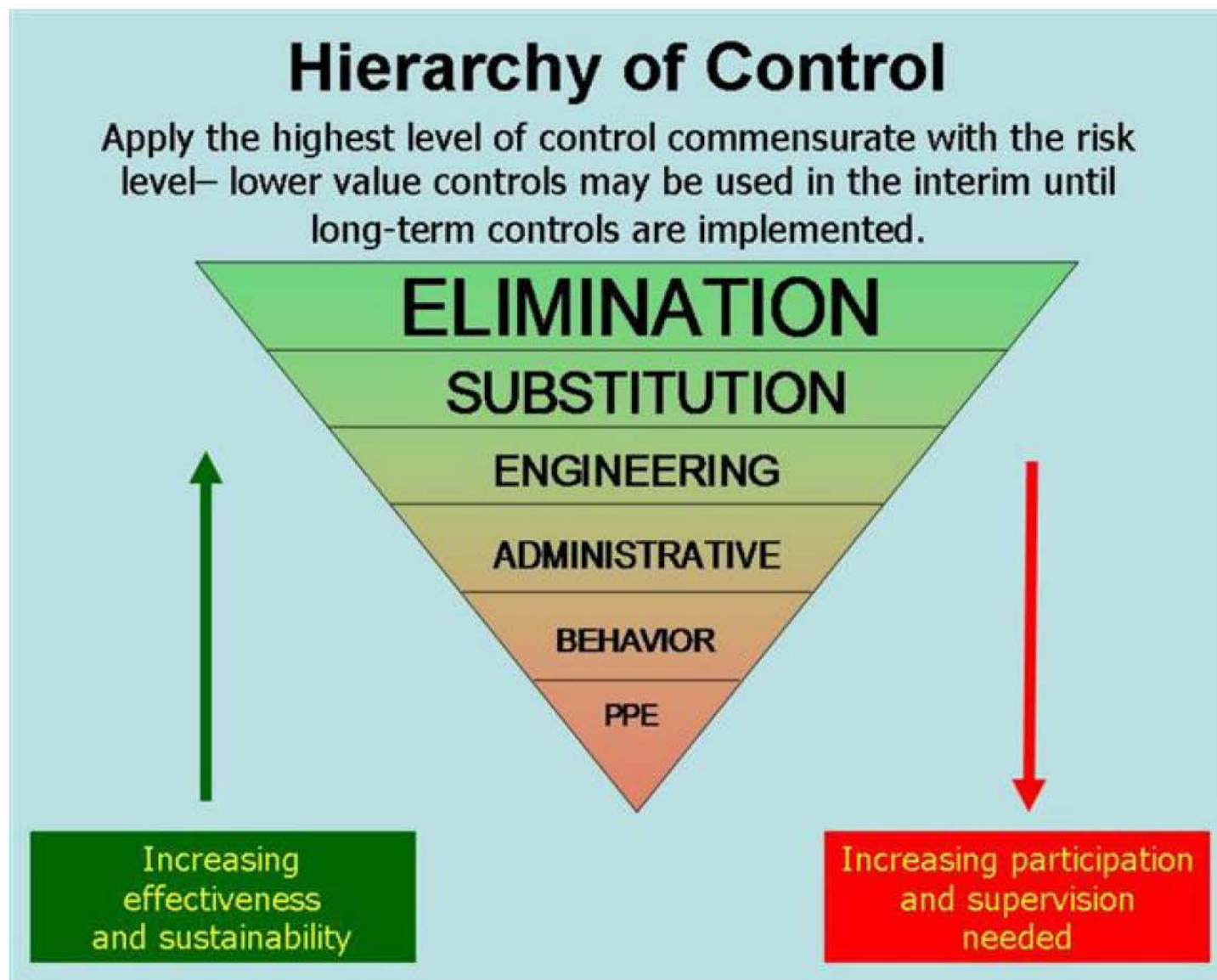
2. Control

Prevent		
	Elimination	
	Substitution	
	Method of work	
	Engineering/technical measures and selection of equipment	
	Operational	
	PPE	
Train		

Have all
the
options
really
been
looked
at?



Have all the options **really** been looked at?



Have all the options **really** been looked at?

Principles of Prevention: MHSW Regs 1999 Schedule 1

- (a) *avoiding risks;*
- (b) *evaluating the risks which cannot be avoided;*
- (c) *combating the risks at source;*
- (d) *adapting the work to the individual, especially as regards the design of workplaces, the choice of work equipment and the choice of working methods, with a view to reducing their effect on health;*

Have all the options **really** been looked at?

- (e) adapting to technical progress;*
- (f) replacing the dangerous by the non-dangerous or the less dangerous;*
- (g) developing a coherent overall prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the general working environment;*
- (h) giving collective protective measures priority over individual protective measures; and*
- (i) giving appropriate instructions to employees.*

Review

3. Review

Supervise	
Maintain	
Monitor	

Act – to put any problems right

Control of exposure to silica dust

A guide for employees



This is a web-friendly version of leaflet INDG463, published 02/13

This leaflet explains what your employer and you should do to prevent lung disease caused by exposure to silica at work.

What is silica?

Silica is a natural substance found in most rocks, sand and clay and in products such as bricks and concrete. Silica is also used as filler in some plastics. In the workplace these materials create dust when they are cut, sanded, carved etc. Some of this dust may be fine enough to breathe deeply into your lungs and cause harm to your health. The fine dust is called respirable crystalline silica (RCS) and is too fine to see with normal lighting.

The quantity of silica contained in stone and other materials varies considerably between different types of stone:

Approximate crystalline silica content of different materials	
Sandstone	70-90%
Concrete, mortar	25-70%
Tile	30-45%
Granite	20-45%, typically 30%
Slate	20-40%
Brick	Up to 30%
Limestone	2%
Marble	2%

Occupational exposure to RCS can occur in many industries, including:

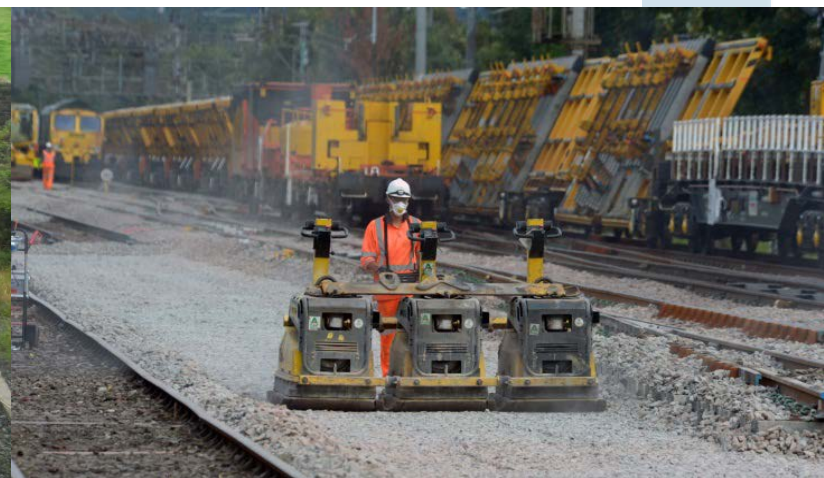
- construction and demolition processes – concrete, stone, brick, mortar;
- quarrying;
- slate mining and slate processing;
- potteries, ceramics, ceramic glaze manufacture, brick and tile manufacture;
- foundries;
- refractory production and cutting;
- concrete product manufacture;
- monumental and architectural masonry manufacture, stone fireplace and kitchen worktop manufacture;
- grit and abrasive blasting, particularly on sandstone.



Mind the dust: ballast is dropped at Minety on 20 August 2013. M. John Stretton



Track Renewals



Assess risk to health – silica in ballast dust

1. Assess

Identify		
	Key tasks involved	Conventional track renewals tasks - unloading, levelling, profiling ballast
	Key hazards to health	Inhalation of respirable crystalline silica– risk respiratory disease (cancer, silicosis, chronic obstructive pulmonary disease)
	Who might be harmed	Workers involved in mechanised track renewals – operators, technical, protection staff, managers/supervisors
Assess	Likelihood and severity of harm	Without suitable and sufficient controls, significant risk of respiratory ill health. Exposure to be controlled to below WEL $0.1\text{mg}/\text{m}^3$ 8 hour TWA; significant exposures at > 50% WEL. High short term peak exposures (e.g. ballast drops) also require control. Known higher risk tasks include ballast regulator, triple wacker, dozer, any work in tunnels , high output renewals operations

Diversity – including protected characteristics when *assessing* the risk?

- Any particularly susceptible individuals for respiratory risk?
- Age?
- Disability?
- Pre-existing health condition?
- Training and understanding – self disclosure?
- Health surveillance baseline – symptom enquiry
- Advice OHP where significant additional risk to individual

Control

2. Control

Prevent		
	Elimination	
	Substitution	
	Method of work	
	Engineering/technical measures and selection of equipment	
	Operational	
	PPE	
Train		

Control measures – silica in ballast dust

2. Control

Prevent		
	Elimination	Not currently reasonably practicable to eliminate ballast
	Substitution	Supplier to minimise % fines in ballast supplied to work sites (review engineering specification for ballast); wetting and quality control upstream by suppliers
	Method of work	Unloading techniques – autoballasters; side tipping wagons; excavators – reduce drop heights
	Engineering/technical measures and selection of equipment	Machine design - dust suppression (water sprays); cabs with air-con and dust filters for new machines Retro fit existing machines where reasonable practicable
	Operational	Exclusion zones to segregate workers (>10m?) Cab doors and windows closed Cleaning regimes for machine cabs (damp clean or vacuum)
	PPE	FFP3 standard for those working on or alongside Face fit testing and written records Where continuous use > 1hour or no face seal, powered RPE Storage of reusable RPE to minimise contamination
Train		For track workers and managers/supervisors specifically to cover health risks, and use of controls including methods of work; and use, storage, cleaning and maintenance of RPE (filters, batteries, checking airflow, replacing parts) Importance of being clean shaven for tight fitting RPE

Diversity - how individual risk might impact on **control**?

■ Engineering control – machine design

- Inclusive design principles for new machines/projects (BS 7000:6 2005)
- Access and adjustability of machines (**age, disability**)
- Issue specialist equipment or modify existing equipment (? Limited scope to do this)

■ Operational control – cab doors/windows closed

- Tolerance to heat in summer (**age, disability**): air conditioning in machine cabs; rest breaks
- Hearing /communications (**age, disability – hearing impairment?**): effective and compatible communications equipment/procedures

■ Exclusion zones – segregating workers

- Vision and hearing 10m away (**age, disability – hearing impairment?**): effective training and communication

Diversity - how individual risk might impact on **control**?

■ Organisational control – work planning

- Phased return to work to build up their strength
- Change/simplify/flexible work pattern and hours

■ RPE use

- Tight fitting RPE – tolerance to heat (**gender, age, disability**): short breaks in exclusion zones
- Face fit testing – facial disfigurement/scarring; illness leading weight loss; dental work can affect face seal (**age, disability**). Also **religious belief** (facial hair). Powered RPE where no face seal possible
- Powered RPE with visor and fan motor – impaired vision or hearing (**age, disability**): effective communications equipment (hoods with in-built mic), anti-mist visors

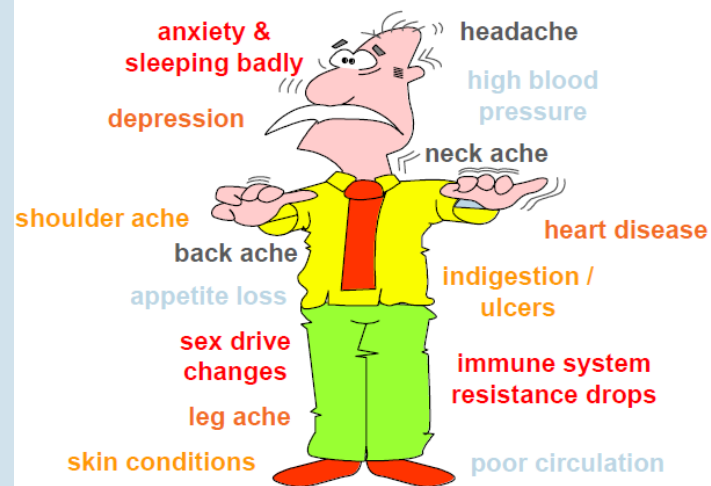
Review controls – silica in ballast dust

3. Review

Supervise	Checks that correct RPE available at site access control and if tight fitting RPE clean shaven. Supervisory checks on correct use of equipment, systems of work, and PPE provided essential
Maintain	Dust controls, including spray/mist systems and cab protection require regular maintenance. Cab dust filtration systems require thorough examination and test every 12 months, and written records. Non disposable RPE – cleaning and maintenance
Monitor	Health surveillance for higher risk workers exposed 50% WEL + - respiratory questionnaire and lung function testing plus periodic chest x rays in line HSE guidance (after 1 year exposure; 15 years; 3 yearly thereafter)

Diversity – how individual risk might impact on **Review** ?

- **Training** – accessible and comprehensible to all (**race, disability**)
- Management of H&S at Work Regs 1999, Reg 13 (1) “Every employer shall entrusting tasks to his employees take into account their capabilities...”
- **Health surveillance** – reflects additional risk to individuals



- Take care of yourself- diet, exercise, rest
- Build strong positive relationships with family, friends, colleagues
- Learn from experience
- Anticipate and accept change
- Take action and work towards a goal
- Persist in the face of setbacks
- Maintain perspective and remain hopeful
- Start laughing
- Keep a journal
- Practice stress management and relaxation techniques
- Get professional help



Stress

Key areas for stress

- **Demands:** workload, work patterns, work environment
- **Control:** How much say the person has in the way they do their work
- **Support:** encouragement, sponsorship and resources provided by the organisation, line management and colleagues
- **Relationships:** promoting positive working to avoid conflict and dealing with unacceptable behaviour
- **Role:** Whether people understand their role within the organisation and whether the organisation ensures that they do not have conflicting roles
- **Change:** How organisational change is managed and communicated in the organisation.

To alleviate stress

- A Good work-life balance
- B Leadership – senior and middle managers
- C Good physical work environment
- D No-blame culture/trust
- E Some control and flexibility over work
- F Recognition/praise
- G Open communication and willingness to listen
- H Positive promotion of psychological wellbeing – lack of stigma
- I Well trained managers with people skills
- J Time and resources recognised and delivered

Examples of reasonable adjustments

■ Working arrangements

- Encourage employees to visit the workplace so that they stay in touch
- Offer them a phased return to build up their strength
- Regular reviews/communication with TU Rep/appropriate Manager

■ Working environment

- Access to a quiet space
- Peer support or buddying

■ Work adjustments

- Issue specialist equipment or modify existing equipment
- Change/Simplify/Flexible work pattern e.g. need a later start ?
- Consider need for additional breaks ?
- Reallocation of tasks (take some work off them or do some different types of work)



Thank you !

Any questions ?

Claire.dickinson@orr.gsi.gov.uk