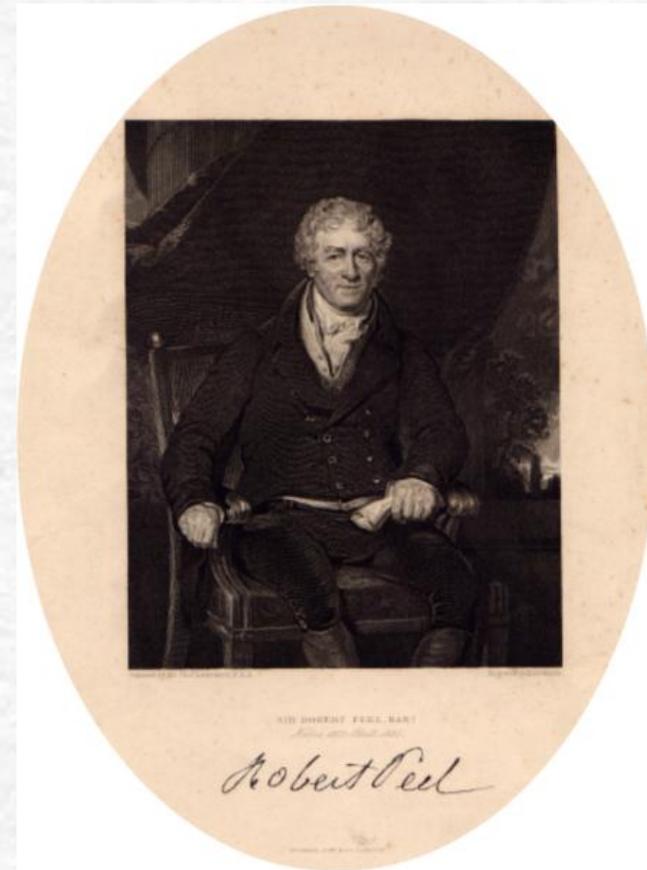


Where we were, where we are and the future

T Rose, Divisional Director, HSE
Wales & West

1802 Introduction of the world's first Health and Safety Legislation

- Sir Robert Peel, one of the countries leading industrialists employing 15,000 people in the Staffordshire and Lancashire cotton mills & MP for Tamworth introduces
 - 'An Act for the preservation of Health and Morals of Apprentices and others employed in Cotton and other Mills, and cotton and other Factories'



1802 Act

- ☛ "Whereas it hath of late become a practice in cotton and woollen mills, and in cotton and woollen factories, to employ a great number of male and female apprentices, and other persons, in the same building, in consequence of which certain regulations are now necessary to preserve the health and morals of such apprentices."

The Act, briefly stated

- (1) The master or mistress of the factory must observe the law.
- (2) All rooms in a factory are to be lime-washed twice a year and duly ventilated.
- (3) Every apprentice is to be supplied with two complete suits of clothing with suitable linen, stockings, hats and shoes.
- (4) The hours of work of apprentices are not to exceed twelve a day, nor commence before six in the morning, nor conclude after nine at night.

The Act

• (5) They are to be instructed every working day during the first four years of apprenticeship in reading, writing and arithmetic.

(6) Male and female apprentices are to be provided with separate sleeping apartments, and not more than two to sleep in one bed.

(7) On Sunday they are to be instructed in the principles of the Christian religion.

1819 Sir Robert Peel introduces a new Factory Act

- The 1802 Act was largely ineffective and so Peel continued to argue for further reform.
- He introduced the 1819 Factory Act to overcome the problems
- First Factory Inspectors appointed 1833

1842 First Mining Legislation

- ☛ Bans the employment of children and women in underground coal mines
- ☛ First mines inspector appointed 1843

Mining and Quarrying education

- 1838 First (unsuccessful) School of Mines suggested and funded by Charles Lemon, led too
- 1851 Government School of Mines London
- 1859 Schools of Mines set up by Devon and Cornwall Miners Association with central laboratories at Redruth using the Science and Arts Council and GSM resources to feed successful students to GSM.
- 1863 Name changed to Royal School of Mines

Mining and Quarry Education

- 1866 Francis Oates of St Just School qualifies to go to RSM. (Founded De Beers with Cecil Rhodes)
- 1888 Moved laboratories to Camborne

1872 Metalliferous Mines Act

- First comprehensive legislation for non coal mines including quarries
- Metalliferous mines inspectors inspect quarries

1894 Quarries Act

- ☞ Metalliferous Mines inspectors take prosecutions against quarry companies
 - 1897 52 convictions
 - 1898 87 convictions
- ☞ First 2 quarries inspectors appointed 1911
- ☞ Further 6 appointed 1912
- ☞ Fatal accident rate consistently higher than for coal workers

1910 Royal Commission on Health and safety in Metalliferous Mines and Quarries

- 'Managers needed to be 25 and possess a qualifying certificate'
- 'In many cases the management is in the hands of persons who were better acquainted with the commercial rather than working side of quarries so that safety did not receive its proper share of attention'
- Reported in 1914 and the Great War prevented implementation (apart from the Commission findings on coal mines 1911)

1920

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2000/1

- ☛ 5,479 Quarries
- ☛ 54 Deaths
- ☛ 3571 accidents
- ☛ 39,821,882 tons output

- ☛ 3,000 Quarries
- ☛ 6 Deaths
- ☛ 536 Accidents
- ☛ 200,000 tonnes + output

1929 Silicosis

- ☛ The dangerous nature of many of the dusts encountered in the industry ought by now to be fully appreciated by those concerned, and more determined efforts should be made to grapple with these dangers

1963 Vehicle accidents

- Taken over the past few decades, statistics prove... haulage and transport have been responsible for most accidents.... As a preliminary the transport system should be thoroughly reviewed and were necessary organised to reduce to a minimum the more common defects which come to light

Prescriptive, incomplete legislation

- ☞ Mines and Quarries Act 1954
- ☞ Tips Act 1969
- ☞ High accident and fatal accident rate in the industry
 - Fatal rate typically 30 times general industry



1974 Health and Safety at Work etc Act

- ☛ Self regulation
- ☛ Address the safety of the community
- ☛ Basis of modern legislation



The Hard Target Initiative

Cutting accidents by 50%

- New quarry regulations 1999
- Government's "Revitalising" agenda
- Devised by Quarries National Joint Advisory Committee (QNJAC)
- Commitment of companies and Directors, Unions and workforce, Trade associations, Universities and colleges, Professional bodies and the industry training organisation

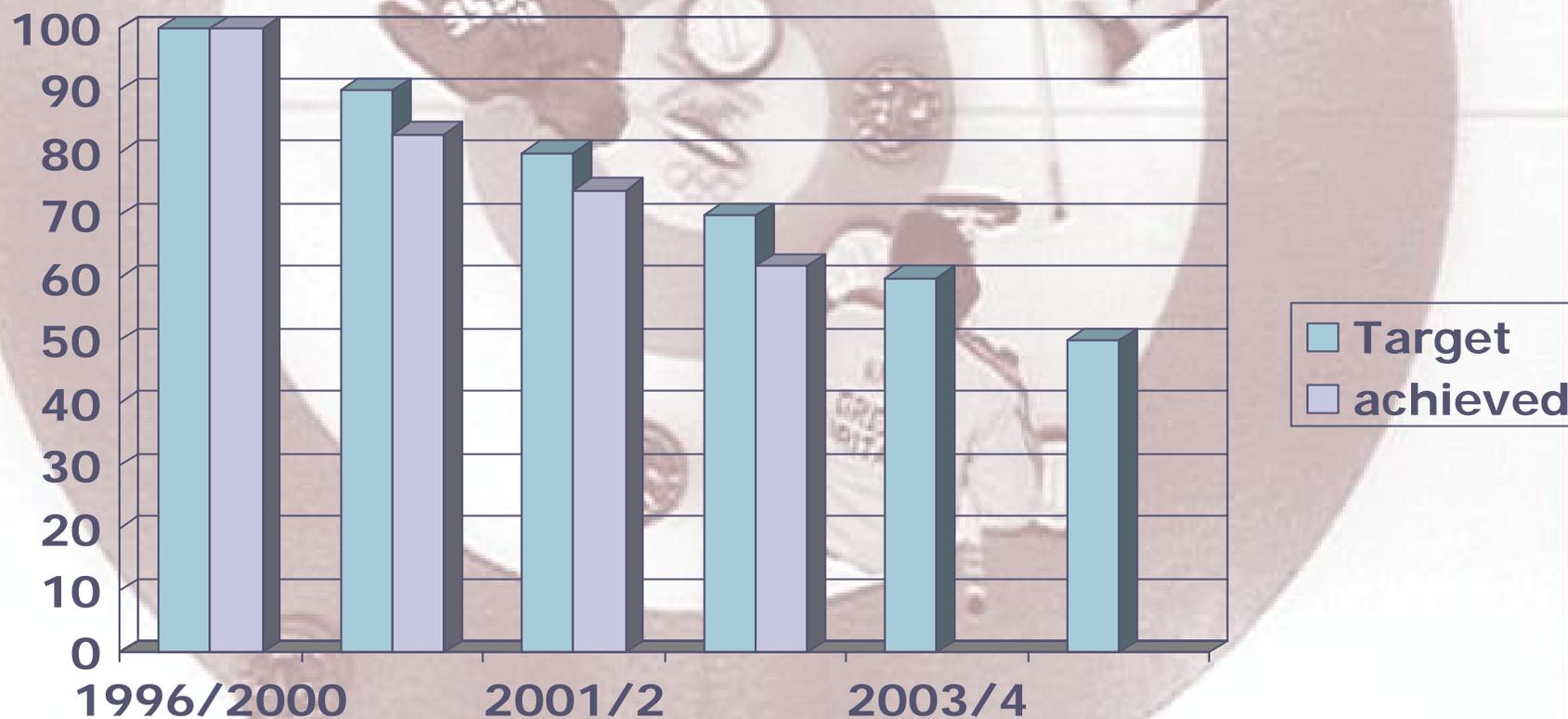


The revitalising agenda

- Plateau in accident reduction
- Commitment of employers
- Involvement of the workforce
- Targets for accident and ill-health reduction

Hard target 50% reduction in 5 years

Progress to date



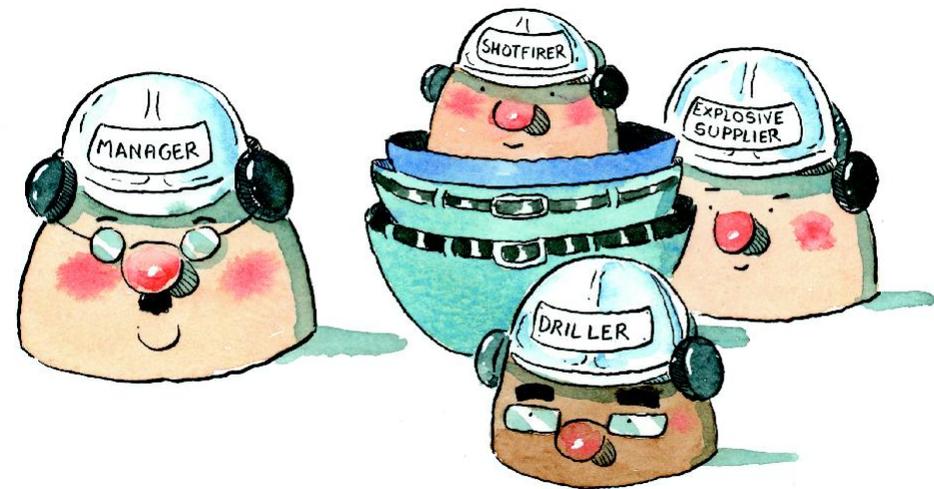
Design of the quarry

- Understandable design
- Correct suitable equipment
- Safe environment
- Involvement of the workforce



Management structure

- Demonstrate management competence
- Demonstrate managers commitment
- Achieve results



Competence

- ☞ An industry that can demonstrate total competence
 - NVQ
 - Engineering council



Continuous professional development

- Keeping up to date with technology and change
- Use Institute of quarrying or similar schemes



Workforce participation

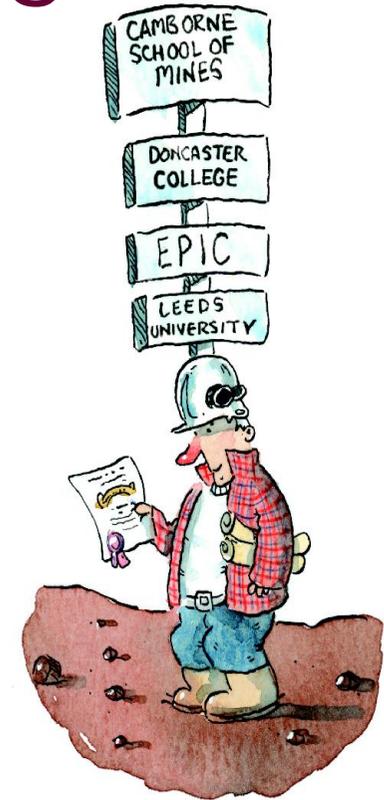
- Competent safety representatives trained on TUC/QNJAC courses
- Full involvement of the workforce will reduce accidents by 50%



Education and training

Industry support for

- Universities
- Colleges
- EPIC
- Professional Institutions



The future

- Competent management and workforce
- Well designed quarry
- Involvement of the workforce
- Greater attention to health issues (including occupational health provision and rehabilitation)
- Greater international co-operation e.g. National Sand and Gravel Association in USA

