

Peter Hetherington

Recent Employment

Self-employed working in a multi-disciplinary team developing Detailed Project Report for new underground coal mine project in central India.

Self-employed engineering consultant engaged as an Electrical Engineer developing equipment and systems for the construction and operation of a new mine complex. Work includes developing and reviewing designs, system integration and regulatory compliance.

Self-employed Engineering Consultant working on a range of engineering activities associated with all types of mining within the UK and overseas. Work including feasibility study reports, due diligence, specialist engineering reports and mining product development.

Established own company to pursue the Engineering Mining Consultancy – Completed first year of trading April 2015 and continued to the present engaged by a number of clients both in the UK and overseas.

As Head of Engineering, UK Coal, responsible as the Owner's representative for all equipment and systems used in UK Coal Deep Mines operations.

For 11 years until March 2013, I was employed by UK Coal as **Head of Engineering** responsible to the Director of Mining for all aspects of engineering with respect to Deep Mine Operations.

As **Head of Engineering**, I oversaw a multi-disciplined group of engineers, mechanical, electrical, quality, reliability and maintainability providing technical guidance and support to the operational elements of the deep mined business with respect to the equipment, systems and services utilised in the deep mine operations.

Responsibilities included knowledge, interpretation, application and compliance to the Mining Legislation, Standards and Guidance applicable to coal mining.

Member of the industry committee developing Qualification Standards for specialists in the wider mining industry at all levels from operator through supervisor to management.

Professional Qualifications

Chartered Engineer

Fellow of the Institution of Mining Minerals & Metallurgy [IOM3]. [Past President Yorkshire Branch and National Council Member]

Honorary Treasurer and Trustee – Fellow - Midland Institute of Mining Engineers.

Approved Assessor – IOM3

Member of the Institution of Engineering and Technology [IET].

Relevant Experience

- A fully qualified graduate engineer and manager with a wide experience in all aspects of engineering associated with underground mines.
- Experience in all aspects of modern underground mining systems including roadway & panel development, longwall & shortwall face installations, multi-entry mining, conveyor systems required to support the mining function including coal clearance, HV & LV electrical distribution systems, ventilation, pumping, methane drainage, communications, winding, and transport systems.
- Experience includes working on new mine projects, specifically Riccall and North Selby within the British Coal Selby Coalfield, and Harworth Colliery extension.
- Knowledge of the JORC Standards and requirements.
- Widely experienced and committed to the application of safe working at the design and operational levels with emphasis on the use of technology/automation to improve overall operational safety & consistent performance.
- Developing strategies for safe & capable equipment & systems, for use in mines, with focus on in service reliability through all phases of asset life. Excellence in reliability, through design/manufacture, and maintainability to deliver the high availability necessary to support single production unit mines
- NEBOSH certificate and the use of Hazop, Risk Assessment, Failure Mode and Criticality Analysis FTA, Safety Audit, and other safety management tools.
- Project management as an essential tool to deliver on-time and on-cost project solutions.
- Experience in all aspects of hazardous area equipment, directives, and associated BS, EN and IEC standards.
- Member of B.S.I. including development of European standards associated with underground equipment and systems. Currently CEN/TC 305-WG5 Equipment and Protective Systems for Mining TC31 WG11 – Electrical installations in mines.
- Past Member of IECEx Forum.
- Member of EECS management board and advisory council. [Disbanded in 2002 when the Electrical Equipment Certification Services was closed and replaced with private provider BASEEFA]. Past member of BASEEFA Management board.
- Actively supported UK mining industry technical committee and working groups.
- Currently chairperson for UKCEF Mining Engineering Liaison

- Member of the Safe Man-riding in Mines Committee SMIM.
- Past member of Mining Qualifications Board and Mining Qualifications Committee – recently directly involved in developing specialist operational standards for mining skills including training and assessment.
- Past Examiner for the MQB Mining Qualifications Board Examination in Mining Law.
- Past Member of Euracoal Technical Research Committee.

Papers and Presentations

Year	Forum	Paper
1997	International Mining Symposium Aachen	A New Approach to Longwall Face Design in the UK
2003	International Mining Symposium Aachen	Variable Frequency Motors in UK Coal Mines
2002	Institute of Mining Engineers/IOM3	Atex Directive – in Coal Mining Industry
2003	Australian Mining Symposium	Daw Mill Colliery – Lessons Learnt
2009	Midland Institute of Mining Engineers	The Safe Introduction of Engineering Improvements into the Coal Mining Environment
2012	Midland Institute of Mining Engineers	Stage Loader Transmissions
2013	Midland Institute of Mining Engineers	Quality in Mining Engineering
2016	Midland Institute of Mining Engineers	The value of Asset Management in Mining
2017	York University – Engineers Society	Woodsmith Mine
2017	IOM3 – MTD – Symposium Current Developments in the UK Mining Division	A new deep mine in the UK
2018	Minerals Engineering Society	The future of fertiliser – A new deep mine in the UK.
2019	Midland Institute of Mining Engineers	The Application of Technology in High Performance Winding Systems

Education

1971 - 1975	Newcastle- upon- Tyne Polytechnic - BSc Electrical and Electronic Engineering
1976	Mining Qualifications Board - Electrical Engineers Certificate: Number 4884
1999	National General Certificate in Occupational Safety and Health [NEBOSH Certificate]
2007	University of Warwick - Post Graduate Diploma in Engineering Business

Management

PERIOD	Description	Company
2024 – Present	<p>Independent Engineering Consultant</p> <p>Working in a multi-disciplinary team developing Detailed Project Report for new underground coal mine project in central India. Specifically:</p> <ul style="list-style-type: none"> • Feasibility level / basic Engineering design of power distribution, • Water management and control, electrical distribution and control, automation strategies and control centres. <p>Including input into:</p> <ul style="list-style-type: none"> • General mining equipment choices. • Men, materials, and mineral transportation methods (vertical and incline shafts), • Surface mineral handling (raw, no processing), • Reporting and data management and maintenance schemes. 	
2016-2024	<p>Independent Engineering Consultant</p> <p>Detailed Electrical design for construction and operation of new mineral mine complex including</p> <ul style="list-style-type: none"> • Power Supply design for construction and operations • Shaft Sinking Systems • Deep Shaft Hoisting Systems • Mine Ventilation • Multi- Entry – Continuous Miner Mining Systems • Coal Clearance and Mineral Handling • Underground Transport Systems • Pumping & Wastewater Management • Communications & Data Processing <p>All electrical engineering aspects of new mine project development and operation.</p>	PH-EC
2015-2016	<p>Independent Engineering Consultant</p> <p>Detailed Electrical reticulation design for new mineral mine complex.</p> <p>Further feasibility reports associated with electrical engineering aspects of new mine project.</p>	PH-EC Ltd

PERIOD	Description	Company
	Incident investigation – permit to work systems	
2014 - 2015	<p>Independent Engineering Consultant</p> <p>Sections of feasibility report for new mine project specifically with respect to the transitional phase from project construction phase to full status operational. This included operations, mineral transportation, and mineral processing.</p> <p>Focus on asset management and developing skilled workforce at all levels to deliver design performance. This with a commitment to recruit from local unskilled labour pool.</p> <p>Worked with international consortium in the preparation of tender support information for a major shaft sinking and tunnelling project.</p> <p>Preparation of detailed feasibility report for large overseas mining project.</p>	PH-EC Ltd
2013 - 2014	<p>Independent Engineering Consultant</p> <p>Prepare reports including costs and essential engineering requirements to establishing a care and maintenance program for a small mining operation.</p> <p>Investigation and report into the use of High-Density Polyethylene pipes in potentially explosive atmospheres.</p> <p>Due diligence with respect to the engineering issues around ongoing viability of small/medium mining organisation.</p> <p>Development of specific training package for Permit to Work systems.</p> <p>Mining equipment product development</p>	
2002 – 2013	<p>Head of Engineering & Technical Services –</p> <p>Took over the role of Head of Engineering and technical services with fifteen operational mine deep mines from Ellington in Northumberland to Daw Mill in Warwickshire.</p> <p>Lead a small multi- disciplinary group of engineers providing technical support and advice included mechanical, electrical, civil, engineering design specialists and quality and repair management.</p> <p>The support function also included a central equipment pool for machines, drives, gearboxes etc.</p> <p>A repair workshop for mining equipment with overhaul facilities</p> <p>Routine Condition Monitoring – Oil Laboratory and technical support.</p> <p>Closed mine water management</p>	UK Coal

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	<p>Role changed over the period to include the full range of services including geology, geotechnical, and coal processing survey data analysts.</p> <p>Provided direct support design and project management to all operations</p> <p>Training and development of all engineering roles within the UK Coal operational environment. Including working groups for development of standards-based training and qualifications.</p> <p>Liaison with regulators, industry working groups and forums</p> <p>Liaison and partnership arrangements with major equipment and service suppliers.</p> <p>Mining Qualifications Board examiner</p> <p>Acted on behalf of the industry in British and European Standards development</p>	
1995 – 2002	<i>Mechanisation Engineer [Electrical]</i> – invited to join the RJB Mining Engineering Team – focused on improving the development and production activities and supporting the Northern Section of the business in that endeavour. Collaborating with a specialist mechanisation engineer and progressed relationships with new and existing suppliers.	RJB Mining
1989 - 1994	<i>Electrical Engineer, North Selby Mine</i> – I was selected as the unit electrical engineer at the new North Selby Mine in 1988 at the stage when the shaft construction was completed. My role was to develop and manage the necessary electrical infrastructures and systems to support the planned operations. I was part of the mine executive team lead by the manager.	British Coal
1986 - 1989	<i>Deputy Electrical Engineer, Riccall Mine</i> – in 1986 I was transferred to Riccall in the Selby Coal field. The Shafts were sunk and equipped with ongoing development activities the access the operational areas and develop the coal clearance link roads between Whitemoor, Riccall and Gascoigne Wood. This included the installation of underground infrastructure, development and production systems ramping the operation to full production capability.	British Coal
1979 - 1986	<i>Deputy Electrical Engineer, Royston Drift Mine</i> – Royston Drift was opened in 1977. The mine had a similar engineering organisation to Bullcliffe Wood, and my role was to deliver the mine operational strategy by supporting operations through the shift supervisors and underground craftsmen.	National Coal Board
1977 - 1979	<i>Deputy Electrical Engineer, Bullcliffe Wood Colliery</i> – Seconded to this colliery as an Acting Deputy Electrical in the Mine Management Organisation reporting the Colliery Electrical Engineer.	National Coal Board

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1976 - 1977	Technical Assistant – Initially located at Grimethorpe Colliery where I was appointed as an Assistant Engineer in charge of the electrical engineering support for a seam	National Coal Board
1975 - 1976	Engineering Trainee – re-located from Northeast Area to Barnsley Area to benefit from the growing and expanding operational collieries and support activities building on the then “Plan for Coal.”	National Coal Board
1971 - 1975	Student Apprentice - joined the National Coal Board student apprenticeship scheme – 4 –year program of academic study with practical engineering and operational training. The program included periods at, operational sites, central workshops and headquarters being attached to the various support functions.	National Coal Board