

**LEICESTERSHIRE MINERALS CORE STRATEGY DPD
INDEPENDENT EXAMINATION – MARCH 2009**

ENVIRONMENTAL MATTERS

HEARING STATEMENT by THE COAL AUTHORITY (289)

Paragraph 4.112 et seq. – Fails Test 9

“Whether the provisions in respect of reclamation and the future use of mineral sites are clear and appropriate:

(15) In the context of reclamation (Para 4.112 et seq), should there be reference to minewater treatment schemes? ”

Main Points Raised by The Coal Authority in Original Representation on Paragraph 4.117

- The Coal Authority made a representation on paragraph 4.117 because in its view it failed soundness test 9 as it did not raise awareness of the need for, and consequently provide sufficient flexibility for the future need for a mine water treatment scheme within North West Leicestershire.

Changes Being Sought by The Coal Authority in Original Representation

- The Coal Authority’s suggested improvement would be for a new paragraph, paragraph 4.117a which could read:

“One of the legacies of underground mining activity is rising minewater. Mine water contains iron deposits which gives the water a distinctive orange colour. The minewater treatment schemes designed and operated by The Coal Authority remove the iron deposits through a series of settlement ponds and reed beds to effectively prevent contamination of the nation’s drinking water supplies and watercourses. Minewater treatment schemes will be needed in perpetuity across the coalfields which will include the North West Leicestershire and South Derbyshire coalfield in the medium term.”

Background to The Coal Authority

The Coal Authority Planning and Local Authority Liaison Department was established in April 2008 in order to define and implement the process to re-engage with the planning systems across England, Scotland and Wales. Previous mining activities have left a considerable environmental and public safety legacy across the coalfields. Mining legacy issues include collapses of mine entries and shallow coal mine workings, emissions of mine gases, incidents of spontaneous combustion, and the discharge of water from abandoned coal mines.

The Coal Authority has the responsibility for managing the legacy from coal mining this is achieved by:

- A 24hr/365 day emergency call out service for surface hazards
- A rolling inspection programme for mine entries
- Monitoring and installing a network of unobtrusive vents to safely release mine gases into the atmosphere
- Monitoring minewater recovery and designing, building and operating minewater remediation schemes (our emphasis for this hearing statement)
- Providing plans and information on coal and coal mining activities

It is the aim of the new Planning and Local Authority Liaison Department that the planning processes, both policy making and development/land use management in coalfield areas needs to take more account of the coal mining legacy issues.

The Minewater Treatment Schemes

1. Following the closure of coal mines, the pumping of water to keep the underground workings dry also ceases allowing the mines to flood and the water table to re-stabilise. As the water rises within the mine workings it dissolves metals and other substances which can then pollute ground water aquifers or rivers when it reaches the surface. The orange appearance of mine water is caused by iron ochre being deposited on river beds affecting the rivers eco-system and aquatic life.
2. Minewater treatment schemes are required to either remediate existing minewater discharges or to control minewater at a specific level to prevent pollution of aquifers

or outbreak at the surface. Due to the nature and occurrence of minewater, treatment schemes need to be managed and retained in perpetuity.

3. Working in close collaboration with the Environment Agency and the Scottish Environment Protection Agency, the Coal Authority has identified over 80 significant discharges from abandoned coal mines in Britain that require attention, these impact on over 300km of rivers. In addition to this they also monitor rising mine water in coal mining areas that are still flooding and if necessary undertake schemes to prevent new outbreaks of mine water.
4. The Coal Authority is at the forefront of minewater remediation and pollution prevention with 46 minewater schemes in operation. These remediate over 150km of previously polluted watercourses and prevent over 1200 tonnes per year of iron from entering the rivers. The rolling programme of remediation is now being driven by the EU Water Framework Directive.
5. The treatment of minewater from coal mines is relatively straight forward and comprises collection of the raw minewater, aeration, settlement of the iron ochre, filtration through reed beds and discharge of the clean water into a watercourse. Periodically the iron ochre sludge which builds up over several years requires removal from the treatment scheme and although the present use for iron ochre is limited the Coal Authority is researching several new ideas for using this material as a product.
6. With its experience the Coal Authority is able to build schemes that are both very efficient at treating minewater and are sympathetic to the local surroundings. They are usually unobtrusive features and in addition to creating biodiversity opportunities can also improve the appearance of the landscape, sometimes providing a water feature as part of a larger recreation area.
7. The north-west Leicestershire and South Derbyshire coalfields will require minewater treatment schemes by the Coal Authority in the medium term which will be within this plan period. There is an existing minewater discharge within the Leicestershire coalfield on the Environment Agency priority list and minewater levels

within the South Derbyshire coalfield are now nearing the surface. All proposed minewater treatment schemes go through a rigorous design programme which involves consultation with Local Authorities, key stakeholders and the public, following this a full planning application is made. Typically minewater schemes take 4-6 months to construct and once operational will remove virtually all then iron from the minewater. Rivers previously continually polluted by a minewater discharge will recover and improve by several classifications within a few months of a minewater treatment scheme becoming operational.

Conclusion

8. The Coal Authority is of the view that this is locally distinctive issue which needs to be included within the Leicestershire Minerals Development Framework. Without raising awareness and a specific reference to the future need for a minewater treatment scheme the Minerals Core Strategy is not sound or flexible enough.

The Coal Authority

December 2008

Photographs of minewater and treatment schemes



Minewater discharge, Lancashire



Minewater polluted river, Wales



Pemberton minewater scheme, Lancs



Lathallan Mill minewater scheme, Scotland