

6. Deep Mined Coal

6.1 Introduction

- 6.1.1 The County Council recognises that coal is a nationally important energy mineral. Coal mines are located only in the south of the County and are concentrated on the Selby complex, Kellingley Colliery and the workings from Prince of Wales Colliery in Wakefield District which extend underground beneath North Yorkshire. The mining industry is closely integrated into the economic and social life of parts of the Selby area.
- 6.1.2 National deep mined coal output is declining. In the 9 months to December 1994 24 mt of coal was extracted from deep mines in the UK. It is estimated that about 45% of this was from Selby and Kellingley. The largest market is in electricity generation. Large quantities of coal are held in stock at both collieries and the power stations.
- 6.1.3 Despite continuing efforts towards greater mechanisation, the coal industry remains a major employer in part of North Yorkshire. It is estimated that, together, Kellingley Colliery and the Selby Coalfield employ about 4,900 persons. While there is still a major element of daily travel from the old West Yorkshire coalfield into the Selby area, many employees and contractors are resident in the County. A new housing programme was pursued in the 1980's and households dependent on mining now form a significant part of the local community.
- 6.1.4 Policies in Chapter 6 seek to protect or limit the adverse impact of coal mining on the environment, both from the operations themselves and from the associated bulk haulage of materials and the effects of subsidence damage.

6.2 Geology

- 6.2.1 The major coal resources in the County form part of the concealed Yorkshire Coalfield lying at some depth below the surface. There are no significant outcrops or shallow seams and thus no demand for opencast working. There are some lesser coal deposits associated with upland limestone and gritstones but these are now principally of interest to geologists and industrial archaeologists, having been worked in association with early lead, iron and lime burning operations.
- 6.2.2 The most productive resource is the Barnsley Seam in the Selby Coalfield which reaches a thickness of over three metres. It dips from west to east and is currently worked at a maximum depth of approximately 1,100 metres. Faulting and other geological constraints make for inconsistencies in extraction. Kellingley Colliery has access to a number of somewhat thinner productive seams.

6.3 Policy Context

- 6.3.1 Government guidance has been issued in the form of MPG3 "Coal Mining and Colliery Spoil Disposal". It emphasises the greater certainty which a plan led approach to the coal industry can give and offers advice on both opencast and deep mining. It commends the use of local liaison committees to provide a means of bringing the industry together with mineral planning authorities. In this context the County Council fully intends to continue with the statutory working parties arising from the decision in 1976 to permit the development of the Selby Coalfield and which have met regularly since then.
- 6.3.2 MPG3 emphasises that national policy seeks the *"largest economically viable coal industry for the longer term within the broad objectives of encouraging competition, promoting economic growth and assisting the creation and maintenance of employment."* It goes on to stress that this must be consistent with good land use planning and strike a balance between the economic importance of coal and protection of the environment. This policy is set within a stated attitude to energy policy overall which emphasises security, diversity and sustainability of energy supply, customer choice, competitive pricing, energy efficiency and the environment.
- 6.3.3 From November 1994 the Coal Authority took over the ownership of underground coal measures and the responsibility for leasing mining operations to private companies. For a temporary period the lessee was British Coal but from January 1995 RJB Mining assumed ownership of the surface installations in the County and the existing planning requirements automatically transferred to them.
- 6.3.4 The redistribution of British Coal assets between the Coal Authority and private companies created a new national context within which the planning system will have to work. However it is clear that, despite its declining market sector, the majority of coal will nationally continue to be used for power generation (approximately 76% of the market in 1993).
- 6.3.5 The transfer from the public to the private sector makes it impossible to assess how the future pattern of demand may impact on the capacity of North Yorkshire coal mines to produce over 12 million tonnes per annum and whether there could be a demand for further market led changes to working practices and planning permissions.
- 6.3.6 Because of the extent of current planning permissions, the shrinking market and the level of uncertainty about the competitive position of individual mines, the Plan accepts the advice of MPG3 that it is not appropriate for the planning system to identify a specific landbank of resources for future coal production. However, the County Council acknowledges the importance of coal mining to the economic and social wellbeing of the Selby area and will support in principle the continued operation of the existing coal mines in the County.

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- 6.3.7 Underground mining affects a number of surface interests. Statutory requirements and safeguards exist to protect gas and water mains and to undertake advance and remedial works to floodbanks and watercourses. Nature conservation interests may be particularly sensitive to change in subsidence levels.

6.4 *Future Development*

- 6.4.1 Future development of the Selby Coalfield would involve either working new seams within the existing geographical area of the current Coalfield planning permission or extending workings laterally beyond current boundaries. It is known that the Barnsley seam dips eastward to be workable at greater depths in East Yorkshire. Subject to the necessary planning permissions workings could extend from existing shaft sites for long distances beyond the currently permitted area, limited only by technical factors. MPG3 makes it clear that the economic working of deep mine reserves is "*effectively limited to those which can be accessed from present workings*". If extensions to the Coalfield are to be pursued this means that the Gascoigne Wood site would still be expected to be the key production point and, together with certain shaft sites, to have an extended life. No policies in this Plan would preclude that possibility. If proposals for further development of the Selby Coalfield emerge the County Council would seek to ensure that the standards of planning control involved in determining and implementing the terms of the 1976, 1979 and 1994 planning permissions relating to Gascoigne Wood were maintained and would look critically at any further proposals for colliery waste disposal in the County in the light of experience with the recently permitted waste disposal facility.
- 6.4.2 Dependent upon the market situation and the future competitive position of Kellingley Colliery, it is possible that planning permission will need to be sought during the Plan period for an extension. The same could apply to a further extension of underground working from Prince of Wales Colliery into North Yorkshire. For the reasons detailed in paragraph 6.3.6 it would be inappropriate to make specific land allocations for these contingencies. However, further workings at existing sites could be pursued during the Plan period and the County Council will have regard to the impact of extraction and spoil disposal on the environment as well as the potential benefits to the economy and employment. The potential which exists for deep mining and colliery spoil disposal to have a wide range of environmental impacts means that it is reasonable to expect major proposals to be accompanied by a comprehensive Environmental Statement. Criteria to assess the environmental impact of proposals are set out in the policies in Chapter 4 as well as in Chapter 6.

*Policy 6/1
Environmental
Statement*

The Mineral Planning Authority requires that planning applications for major coal mining or colliery waste disposal be accompanied by an Environmental Statement.

*Policy 6/2
Deep Mining of Coal*

In considering an application for the extraction of coal by underground mining, the Mineral Planning Authority will need to be satisfied that:-

- (i) the arrangements for the disposal of waste materials arising from the development are acceptable;
- (ii) the level of likely subsidence is acceptable;
- (iii) the methods of transporting coal and colliery waste are acceptable; and
- (iv) the siting and design of any surface development is acceptable

The impacts and benefits on the local economy, including jobs created or maintained and the effect on other local businesses will be a material consideration in determining such applications

- 6.4.3 Some years ago further potential deep coalfields were identified to the south east of Selby (the East Yorkshire Prospect) and to the north of York (the North Ouse Prospect). Both areas would require the development of new mines. The approximate areas of these prospects are shown on Figure 1.
- 6.4.4 Seismic and, in some instances, borehole exploration of potential coal mining areas does not normally require planning permission. Seismic testing can normally be undertaken using mobile equipment. In some cases it requires shallow holes to be drilled to accommodate shot firing in order to produce the required geological information. Only where exploration involves the drilling of deep boreholes, the driving of tunnels into new areas for the purposes of "in seam" seismic or other work, or where surface seismic work involves particularly large explosive charges or affects special buildings or areas, would planning permission be required. In all other cases, it constitutes permitted development. The County Council recognises that geological exploration of possible future reserves is a necessary pre-requisite to working coal, but wishes to encourage the coal industry wherever possible to avoid undertaking seismic work in designated areas of nature conservation importance or near important sites/structures of archaeological or historic importance. Advice on seismic testing and/or the grant of planning permission for an exploratory borehole will not be regarded as committing the County Council to any subsequent grant of planning permission for development
- 6.4.5 MPG3 indicates that unworked deep mine reserves should be protected, and advises that it may be preferable to postpone major surface development until subsidence has passed or to ensure that the design/construction of new buildings incorporates precautionary measures. The Mineral Consultation Area procedure referred to in Section 3.3 and Policies 3/6 and 3/7 is the appropriate mechanism for protecting

reserves from sterilisation.

6.5 Disposal of Colliery Waste

- 6.5.1 Waste products from coal mining comprise coarse discard (minestone) and fines produced by the washing process. The former comes to the surface, mostly with 'run of mine' coal as a result of the cutting of roadways, drivages, other underground development work and the high degree of automation applied to variable geology. While the coalfield operator does not seek to produce waste unnecessarily, geology and mining methods combine to add to the quantities involved. Theoretically mining methods could be made more sustainable by minimising the production of waste.
- 6.5.2 Some colliery waste has been used as a secondary aggregate in local construction schemes (see Chapter 5). The ability to dispose of coarse discard from Kellingley Colliery at the Gale Common ash disposal site, where it is used in bank building, also continues to provide a positive outlet thus saving on tipping space and satisfying a need.
- 6.5.3 About 2½ million tonnes of waste is produced each year by Selby Coalfield and over 1 million tonnes by Kellingley Colliery. Fines in the form of multi-roll filter (MRF) cake at Gascoigne Wood and pressed cake at Kellingley contain a high moisture content and constitute a difficult to handle material which needs to dry out. At Kellingley there are on-site lagoons for this purpose which, after a period, are excavated and the material taken to a nearby site where it is used in association with minestone to restore former quarry workings. At Gascoigne Wood a waste disposal site subject to a modern planning permission provides a major facility to dispose of the material in cells formed from coarse discard, with an element of progressive restoration to agriculture, forestry and public access. In the longer term it is expected that this site will form a significant landscape feature in its own right but during its operational life it will have an intrusive environmental effect which can only be mitigated to a limited extent.
- 6.5.4 It is the need to accommodate both dry minestone and 'wet' fines which imposes the main engineering constraints on tip design and controls the pace of progressive restoration.
- 6.5.5 The 'wet' fines require a large working area and the construction of a succession of vertically overlapping 'cells' over an extensive area in order to meet engineering requirements. On the Gascoigne Wood site each cell is capped with minestone when full. While this technique is superior to the construction of settling lagoons for dealing with this waste, in terms of reclamation it still retards the scope for speedy progressive restoration of the site to final landform and appearance. The County Council will wish to monitor the wet:dry ratio at this site so as to ensure compliance with the terms of the planning permission, maintain the commitment by RJB Mining to the Welbeck Agreement, whereby an average of about 1 million tonnes/annum of Selby spoil is used positively for land

reclamation at a regionally significant site in Wakefield District, and obtain assurance that forecasts of waste volumes prove to be reasonably accurate. It will also require the use of the Evaluative Framework technique recommended by the Department of the Environment to provide comparative data on alternatives before any major planning application is determined.

*Policy 6/3
Evaluative Framework
Technique*

Before determining any major application for colliery spoil disposal the Mineral Planning Authority will require applicants to have undertaken a comparative study of alternatives using the "Procedural Manual Evaluative Framework : Assessment of Alternative Colliery Spoil Disposal Options" published by the DoE in 1990 or its successor document.

*Policy 6/4
Colliery Spoil Disposal*

The Mineral Planning Authority will require proposals for the disposal of colliery spoil to:-

- i) utilise voids or, if not available, derelict or degraded land, wherever possible;
- ii) provide a detailed justification for proposals which, in exceptional circumstances, seek to utilise agricultural land;
- iii) demonstrate that waste arising from the development and requiring surface disposal is kept to a minimum;
- iv) be designed to comprise a compatible landscape feature, or features, upon restoration; and
- v) incorporate detailed measures to mitigate the impact of operations on local amenity and the environment.

*Policy 6/5
Colliery Waste Tips*

Proposals for re-working colliery waste tips will be permitted provided that they are not likely to cause unacceptable impact on local amenity and the environment or to disturb a restored and established landscape feature.

6.6 Transport

- 6.6.1 As a bulk product, coal is well suited to rail, waterway and conveyor transport. There is a planning condition controlling the transport of the output from the Selby Coalfield such that the planning authority's prior approval is required for the use of road transport. 'Merry go Round' trains are used to deliver coal to the Aire Valley Power Stations and further afield. Infrastructure is in place to enable slow moving trains to load rapidly at the mine and unload at the power stations. Colliery waste is also taken by rail from the Gascoigne Wood mine, using a separate loading system, to the Welbeck site in West Yorkshire. Consideration has been given to the possibility of a canal or conveyor link from Gascoigne Wood to Eggborough Power

Station but it is understood that such options will not be pursued in the foreseeable future.

- 6.6.2 Some coal from Kellingley Colliery is transported by barge to Ferrybridge Power Station where a special unloading system exists.
- 6.6.3 Mining activity is located in a part of the County where there is already a concentration of heavy goods traffic. Local communities and the environment have benefitted from the ability to keep road transport of coal to a minimum. In the interests of local amenity voluntary lorry routeing agreements exist in respect of the small volume of road haulage of coal and spoil from the Selby complex.

*Policy 6/6
Transport*

Proposals for coal mining and the associated depositing of colliery waste which are likely to involve the bulk transport of material by road will only be permitted where developers can demonstrate that non-road transport is not feasible and that the traffic generated will not have an unacceptable impact on local communities.

6.7 Subsidence

- 6.7.1 Surface subsidence is an inevitable consequence of deep mining. The incidence varies according to depth and extent of working but is predictable and controllable within relatively narrow tolerances.
- 6.7.2 A common public perception of the obvious way to eliminate or reduce subsidence is to backstow waste materials. MPG3 makes clear that there are significant economic and practical constraints. In practice the continuous longwall retreat method of mining adopted in the Selby Coalfield precludes backstowage as an option for technical and safety reasons.
- 6.7.3 The Selby Coalfield planning permission restricts overall subsidence to 0.99 m but contains areas within it where, in order to protect surface interests, pillars of coal are left unworked to prevent subsidence or to confine it to a lesser prescribed limit. Experience so far confirms that actual subsidence has stayed well within planned limits. There is no similar control in respect of Kellingley and Prince of Wales Collieries.
- 6.7.4 Subsidence causes damage to surface buildings, structures, roads, drainage and flood defences and affects agricultural activity. Also nature conservation interests in the Lower Derwent Valley Ramsar site and Special Protection Area and the Lower Derwent Valley Proposed Special Area of Conservation and in the SSSIs at Skipwith Common, Acaster South Ings, Bur Closes, Heslington Tillmire and Brighton Meadows, may be sensitive to changes in subsidence levels. Sites of archaeological or historic importance may need protection from the effects of subsidence. Nature conservation interests can also be harmed if subsidence alters drainage patterns. In a low lying area such as Selby Coalfield which

contains extensive areas of best and most versatile agricultural land it is important that remedial flood defence and drainage works are carried out and there is a standing arrangement with the Environment Agency and Internal Drainage Boards in this respect. The coalfield operator pays for such works. The opportunity to create additional wildlife habitats, by allowing flooding after subsidence, may be considered in certain locations.

- 6.7.5 Operators of deep mines have a statutory right to withdraw support from the surface but also have statutory obligations to make good any damage. Advice is also given on measures to reduce the effects. The Coal Industry Act 1991 improved the rights of individuals affected by subsidence damage.

*Policy 6/7
Subsidence*

The likelihood of subsidence damage being caused by proposals will be a material consideration in determining planning applications for deep mining. Where the impacts of undermining are likely to be high, the Mineral Planning Authority will protect key buildings, built-up areas, sites of international and national nature conservation importance, sites of archaeological or historic importance, best and most versatile agricultural land and watercourses from major subsidence damage, if necessary by requiring the retention of unworked coal. Where subsidence is inevitable, the Mineral Planning Authority will require an agreed monitoring programme to be implemented and remedial action to be taken to mitigate subsidence damage