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Level 3

Managing the potential effects of coal mining subsidence

Endorsement and Authorisation

Endorsed by:



K Brady, Senior Policy and Standards Engineer (Civil Engineering)

Authorised by:



A Dray, Professional Head of Structures Engineering

Accepted for issue by:



M McManus, National Standards Manager

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Issue record

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Compliance

This Network Rail standard shall be complied with by Network Rail and its Contactors from 1st March 2009.

When this Specification is implemented, it is permissible for all projects, which have formally completed GRIP Level 4, to continue to comply with the issue of any relevant Network Rail Standards current when GRIP Level 4 was reached and not to comply with requirements contained herein.

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Comments

The applicability and content of this standard will be reviewed on a regular basis. Written comments on the accuracy and utility of this standard will be taken into account when assessing the need for a new issue of the standard; such comments should be sent to the Principal Policy and Assurance Engineering (Civil Engineering) at 40 Melton Street, London NW1 2EE.

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1 Purpose

The purpose of this standard is to define the procedure for managing the potential effects of subsidence arising from coal mining, so that in following this procedure (a) such effects will not produce an unacceptable risk to the integrity, safe use or performance of railway infrastructure and (b) the cost of Works to manage such effects or for requiring Reservation of Support are determined and, respectively, recovered or paid.

2 Scope

This standard applies to sites where subsidence arising from coal mining may affect railway infrastructure.

3 Roles and Responsibilities

Area Quantity Surveyor (AQS)

Where Works are to be undertaken through Infrastructure Maintenance, the AQS is responsible for:

- 1 The preparation and distribution of estimates for Works (see **7.4**).
- 2 The issuing of a Project Number for Works (**7.6.1** and **7.7.1**), and the closure of the Number on completion of those Works (**7.8.2**).
- 3 The preparation and submission of invoice requests and supporting documentation for Works, and the distribution of copies of these (**7.8.2**).

Financial Controller (Engineering)

The Financial Controller (Engineering) is responsible for:

- 1 The allocation of budgets for Works (**7.5**).

Functional Engineer (FE)

The FE is responsible for:

- 1 The production of a report that covers the potential effects of subsidence, the preferred option to manage these effects, and details of Works to counter the effects or a case for Reservation of Support (**6.2** and **7.1**).
- 2 Liaising with other FEs to elect a Lead Engineer (LE) (**6.3**) and to resolve cross-functional issues (**7.3**).
- 3 When acting as the LE, the preparation and distribution of an Engineering Summary Report (**6.3**) and, where necessary, for arranging meeting(s) to (a) select the appropriate course of action (**6.4**), and (b) agree a business case for Reservation of Support (**6.4**).
- 4 Monitoring the progress of mining operations (**7.3**).
- 5 The development and distribution of Specifications for Works (**7.3**), the distribution of Contractor's approved estimates for Works (**7.4**), and the submission of budget estimates for Works (**7.5**).

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- 6 Checking that Works are planned and executed so that the integrity, safe use and performance of railway infrastructure are maintained (**7.6.2** and **7.7.2**).
- 7 Informing the PME when Preventive Works have been completed (**7.6.2**).
- 8 Determining when subsidence has ceased and confirming the requirements for final Remedial Works (**7.7.2**).
- 9 Checking and signing off Mining Form B(s) and passing these to the AQS (**7.8.1**).
- 10 The approval and processing of Contractor's invoices, and passing copies of these with any supporting evidence to the PME (**7.8.2**).
- 11 Where Reservation of Support is required;
 - a. the preparation of an investment paper to establish the necessary budget (**8.2**),
 - b. the raising of a purchase order in favour of the Mine Operator, the arrangement for settling valid invoices, and lodging copies of receipts of payments (**8.4**).
- 12 Keeping records of Works, and lodging copies of drawings showing changes to the railway infrastructure (**9**).

Infrastructure Maintenance Delivery Manager (IMDM)

The IMDM is responsible for:

- 1 The planning and execution of Works, informing the FEs, PME and AQS of the progress of Works and recording the resources used for them (**7.7.2**).
- 2 Appointment of a Designated Representative for Works (**7.8.1**).

Principal Mining Engineer (PME)

The PME is responsible for:

- 1 The preparation and distribution of a Notice Mining Report (**6.1**).
- 2 The preparation and service of the agreed formal response to a Mine Operator (**7.1**, **8.1** and **8.3**).
- 3 The inspection and monitoring of underground coal mining operations, and reporting the results of these through Periodic Mining Reports (**7.2**).
- 4 Where the selected management option is to allow mining to proceed:
 - a. the preparation and service of Mining Form 5 or 6 on the Mine Operator (**7.6.1** and **7.7.1** respectively),
 - b. notifying the FEs that either Preventive Works may commence (**7.6.1**) or that a Mining Form 6 for Remedial Works has been served (**7.7.1**), and
 - c. informing the Mine Operator when Works have been completed and closing Mining Form(s) when all costs have been recovered (**7.8.3**).