Woodhouse Colliery
Planning Application 4/17/9007
Environmental Statement
Application for Process Change
April 2020

WCM-PA-EIA-Process Change-4/17/9007
Preamble

In connection with its planning application to Cumbria County Council of May 2017 (reference number 4/17/9007), West Cumbria Mining (WCM) has undertaken a refined feasibility study of the proposed workings of the Coal Handling and Processing Plant (CHPP), to be located within the proposed buildings on the former Marchon site at Whitehaven.

The primary result of this study was that a minor change to the workings of the CHPP means there is an opportunity to continue to produce metallurgical coal as part of the development proposal without generating the production of middlings coal as a by-product of that process. This means that all the usable coal that is mined can be sold and used as metallurgical coal for steel making.

WCM’s original planning application had sought permission sought to produce 2,430,000 tonnes per annum (tpa) of premium metallurgical coal and a by-product of 350,000tpa of middlings coal at full production, from years 5 - 50 of the operational mine. The by-product middlings coal was an unwanted, lower value material generated by the original processing plant design, which WCM found a market for, rather than waste it and replace it underground.

Using the most recent results obtained from offshore coal sampling, WCM has undertaken a review of the coal processing plant process with the objective of minimising or eliminating the by-product material. This feasibility work has resulted in a refined process with a minor adjustment to the original design of the processing plant. This process adjustment will enable 100% of the coal recovered from the Run of Mine (RoM) material to meet the classification requirements for our target product, premium metallurgical coal. Therefore, 100% of the processed coal exported from the site [i.e. 2,780,000tpa] will be premium metallurgical coal for use in steel making.

In the original process plant design, all of the coal would have been crushed to 3mm topsize before being passed through a series of cyclones, sieves and screens, as it was washed to produce the premium metallurgical coal product. At that stage, test data showed that the process design would also produce middlings coal as a by-product [along with the reject material, which is rock overburden, and which WCM proposed, and still proposes, to return to the mined-out void spaces]. The middlings coal by-product did not meet the specification for premium metallurgical coal because it exceeded the maximum sulphur content required for that specification.

In the refined process design, which is aimed at reducing sulphur in the coal, all of the coal will be crushed to 6mm topsize before being passed through a similar series of cyclones, sieves and screens, however there will be an additional process to enhance the separation and removal of pyritic sulphur matter, in order to ensure that all the coal achieved from the processed RoM material meets the desired specification for premium metallurgical coal without the need to separate out higher sulphur material.

Essentially, we have introduced an additional step in the treatment process which improves the cleaning efficiency so that we do not need to have a proportion of coal which does not meet the specification for premium metallurgical coal.

Since this adjustment relates only to the internal processing of the product within the coal handling and processing plant, with no difference to the external appearance of the site or the overall quantity of coal that is being mined or exported, it is not considered that it will give rise to any material difference in the effects of the proposal.

This document is an Addendum to the Environmental Statement. It presents information related to the change in the CHPP, including an assessment of whether or not the change results in any changes to the findings and conclusions of the original Environmental Impact Assessment. This document comprises the following parts:

- Part 1 covers the specific environmental topic areas in which WCM’s appointed environmental specialists have identified require review in light of the proposed process change.
- Part 2 of this document addresses the need to ensure that references to middlings coal are no longer made in WCM’s environmental statement. It does this by providing a schedule of references to middlings coal in all existing chapters and suggests amendments to those chapters.
- Part 3 of this document is a new chapter to the Environmental Statement, relating to Greenhouse Gas Emissions (Chapter 19).
- Part 4 of this document is an updated Drawings Register, showing which drawings have been amended to accommodate the change in the Coal Handling and Processing Plant.
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ADDENDUM

PART 1: REVIEW OF ENVIRONMENTAL STATEMENT TOPICS IN RELATION TO PROPOSED CHANGE IN CHPP

In light of the proposed change to the Coal Handling and Processing Plant (CHPP), this Part of the Addendum contains a review of the assessments, findings and conclusions of the original Environmental Impact Assessment submitted to Cumbria County Council by WCM.

Introduction

This part of the document examines whether the proposed change to the CHPP and the removal of middlings coal would result in any material changes to the findings and conclusions of the Environmental Impact Assessment submitted by WCM to Cumbria County Council (CCC) in May 2017, and updated in December 2018.

WCM’s original planning application had sought permission to produce 2,430,000 tonnes per annum (tpa) of premium metallurgical coal and a by-product of 350,000tpa of middlings coal at full production, from years 5 - 50 of the operational mine. The by-product middlings coal was an unwanted, lower value material generated by the original processing plant design, which WCM found a market for, rather than waste it and replace it underground.

Using the most recent results obtained from offshore coal sampling, WCM has undertaken a review of the coal processing plant process with the objective of minimising or eliminating the by-product material. This feasibility work has resulted in a refined process with a minor adjustment to the original design of the processing plant. This process adjustment will enable 100% of the coal recovered from the Run of Mine (RoM) material to meet the classification requirements for our target product, premium metallurgical coal. Therefore, 100% of the processed coal exported from the site (i.e. 2,780,000tpa) will be premium metallurgical coal for use in steel making.

In the original process plant design, all of the coal would have been crushed to 3mm topsize before being passed through a series of cyclones, sieves and screens, as it was washed to produce the premium metallurgical coal product. At that stage, test data showed that the process design would also produce middlings coal as a by-product (along with the reject material, which is rock overburden, and which WCM proposed, and still proposes, to return to the mined-out void spaces). The middlings coal by-product did not meet the specification for premium metallurgical coal because it exceeded the maximum sulphur content required for that specification.

In the refined process design, which is aimed at reducing sulphur in the coal, all of the coal will be crushed to 6mm topsize before being passed through a similar series of cyclones, sieves and screens, however there will be an additional process to enhance the separation and removal of pyritic sulphur matter, in order to ensure that all the coal achieved from the processed RoM material meets the desired specification for premium metallurgical coal without the need to separate out higher sulphur material.

Essentially, we have introduced an additional step in the treatment process which improves the cleaning efficiency so that we do not need to have a proportion of coal which does not meet the specification for premium metallurgical coal.

Since this adjustment relates only to the internal processing of the product within the coal handling and processing plant, with no difference to the external appearance of the site or the overall quantity of coal that is being mined or exported, it is not considered that it will give rise to any material difference in the effects of the proposal.

The CHPP changes have no impact on the time needed to process, water requirements, energy consumption or noise levels. There will be a similar level of reject material as per original assessments. The tonnage of material mined and coal leaving the mine remain exactly as originally described.

The middlings building, as marked on the plans accompanying the planning application, will become known as “a clean coal and reject storage building”; but its location and dimensions will not change. The processed coal stored at the Marchon site is only held for as long as it takes for the next train to arrive to remove it from the site, which is usually a matter of hours, and will rarely be as much as 5 days. The metallurgical coal will be transported to the Rail Loading Facility for delivery to the market as soon as possible. The design of the conveyors throughout and the Coal Preparation operation is predicated on everything working at 500t/hour with temporary storage only required to provide a buffer in the event of breakdowns or maintenance activities.

The Environmental Statement (ES) which accompanied the planning application assessed the potential impacts arising from the project upon a number of different environmental aspects, as well as other aspects as set out by Cumbria County Council in its Scoping Opinion of June 2016.
This part of the report is produced on a precautionary basis to provide an assessment of whether or not the conclusions of each of the relevant original environmental aspect assessments would materially change as a result of the proposed change to the coal preparation process.

There will be no changes to any other aspect of the proposal as a result of this change in the coal preparation process. Notably:

- The location and size of the coal preparation plant remains the same.
- The design of the fully-enclosed coal preparation and temporary storage buildings remain the same.
- The tonnage of material mined remains the same.
- The number of reject material to be placed back underground remains the same.
- The number of trains required to move the product off-site remains the same.
- The operating hours remain the same.
- The number of personnel required for the operation remain the same.
- The number of road movements to and from the mine remains the same during the construction, operation and decommissioning stages.
- Levels of noise emissions remain the same (and the limits set by planning condition will be unaffected).
- Levels of dust emissions remain the same.
- Levels of predicted subsidence as a result of mining remain the same.
- The potential for ecological impacts remains the same.
- The socio-economic conditions and impacts remain the same.
- The hydrology and hydrogeology impacts remain the same.
- The red line boundary remains the same.
- The predicted mining areas remain the same.
- The construction period remains the same.
- The site layout remains the same.
- There are no omissions from the original policy and legislative assessment as a result of the change.

This part of the Report concludes that there will be no material changes to the original assessments, findings and conclusions, and no significant environmental impacts as a result of the proposed change to the coal preparation plant process. In fact, the change will not be noticeable, as the coal preparation all occurs within an enclosed building which is further enclosed in the external dome-shaped building.

Updated Environmental Assessment

This part of the document addresses each assessed environmental topic in light of the proposed change in the process of the coal preparation plant. An assessment is made as to whether there is any likely significant environmental impact or material change to the previous conclusions as a result of the change.

The chapter structure of the original Environmental Statement is followed, and updated assessments are made for the following:

Chapter 7: Socio-economic Assessment
Chapter 8: Road Transport
Chapter 9: Rail Transport
Chapter 10: Landscape and Visual Impact
Chapter 11: Ecology
Chapter 12: Hydrology and Hydrogeology
Chapter 13: Ground Conditions and Contamination
Chapter 14: Noise and Vibration
Chapter 15: Air Quality

Chapter 7: Socio-economic Assessment

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, which include population as an element of the environment that should be assessed. Additionally, the National Planning Policy Framework has the concept of sustainable development, at its heart which includes a social objective - to support strong, healthy and vibrant communities. Local planning development policies also support sustainable development and economic growth in the area.
Research has been used in the ES to establish baseline socio-economic conditions in the location (including such matters as health, employment type and rate, age profiles etc). The types and numbers of employment opportunities arising from the proposal were then assessed for impacts against these baseline conditions. It was predicted that, at full production, the mine would directly employ 518 members of staff, with up to 1,000 indirect roles in support and supply companies. WCM stated that it intends to source 80% of direct employees from within a 33km (20 mile) radius of the mine.

The assessment then examined whether the proposal would have beneficial, neutral or adverse socio-economic impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

A number of impacts were identified as part of this assessment. Where impacts related to changes to the local economy, employment levels, and prosperity, the impacts were found to be major and of significant benefit. Where impacts related to potential changes to the visitor economy, the changes were found to be minor and adverse, though not significant.

Re-assessment due to coal preparation plant process change

The change to the coal preparation plant process will involve no changes in the following:
• Personnel numbers required to operate the coal preparation plant.
• Skill levels of personnel required to operate the coal preparation plant.
• Income levels of those required to operate the coal preparation plant; and,
• External building design or location

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment finds that there will be no material change to the impacts identified in the original assessment. The reason for this is that there are no changes planned to personnel numbers, incomes or skill levels, so the basis and findings of the original assessment remain the same.

Chapter 8: Road Transport

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as requirements in the National Planning Policy Framework (NPPF) and local planning policy documents.

The original assessment used the West Cumbria Transport Model [WCTM], a model developed for Cumbria County Council, to inform the Transport Assessment (TA). One of the most significant factors in the original TA was the early commitment from WCM not to move any coal away from the mine by road, instead to move it all by rail. The TA demonstrated that by doing this, almost 14 million ‘road’ miles would be saved every year at full production.

Some vehicle movements would nonetheless be required during the construction, operational and decommissioning phases of the mine. These were assessed for impacts on the road network and junctions. Public transport routes, as well as walking and cycling routes, were identified which could be used for employees at the mine.

At the time of WCM’s planning application, a major project known as Nugen, adjacent to Sellafield, was under consideration. This was intended to be a new nuclear power station, about 10 miles to the south of Whitehaven, and this would have generated thousands of daily vehicle movements, to accommodate the proposed 6,500 employees required during the construction period. Due to this large potential project which was proposed at the same time as the WCM project, the Council required a cumulative impact assessment for road transport.

The original assessment divided the proposal into three periods - construction, early operation, and full production. During the construction period, up to 364 combined daily vehicle movements in and out of the mine site were assessed; during early operations, 266 combined daily vehicle movements in and out of the site were assessed, and during full production, 1,022 combined daily vehicle movements in and out of the site were assessed.

The assessment then examined whether WCM’s proposal would have beneficial, neutral or adverse impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

As a result of this detailed cumulative impact assessment, it was found that WCM’s proposal would have no significant impacts upon the road network.
Re-assessment due to coal preparation plant process change

The change to the coal preparation plant process will involve no changes in the following:

- Personnel numbers required to operate the coal preparation plant;
- Vehicle movements to and from the mine during both the construction and operational stages; and,
- Coal will still be moved by rail.

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment finds that there will be no material change to the impacts identified in the original assessment. The reason for this is that there are no changes planned to personnel numbers, vehicle movements or the commitment to moving coal off site by rail only.

Chapter 9: Rail Transport

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as requirements in the NPPF and local planning policy documents. The key questions addressed in the assessment were related to rail capacity and suitability of the rail network for the proposed use by WCM.

One of the most significant factors in the original Rail Transport assessment was the early commitment from WCM to move all coal away from the site by rail. WCM has engaged extensively with Network Rail, the national rail operator, over the last 6 years to ensure that its proposals and train requirements can be accommodated within both the existing and proposed timetables for the rail lines from Whitehaven to the port of Redcar, as well as the steel works at Port Talbot and Scunthorpe.

At the time of WCM’s planning application, a major project known as Nugen, adjacent to Sellafield, was under consideration. This was intended to be a new nuclear power station, about 10 miles to the south of Whitehaven, and this would have generated rail movements for the transport of personnel to and from the site. These rail movements would be on the same local line that WCM proposes to use, the Cumbria Coast Line (CCL). Because of this, at the time of the assessment, Cumbria County Council (CCC) required a cumulative impact assessment considering the predicted rail line use by Nugen as well as WCM.

The original assessment examined baseline rail use numbers, using Network Rail Working Timetables, and then ran a series of forecasts depending upon proposed output from the mine (from 0 tonnes of production to full production 5 years after the mine opened), as well as predicted rail movements from the proposed Nugen project.

The assessment then examined whether WCM’s proposal would have beneficial, neutral or adverse impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

As a result of this detailed impact assessment, it was found that WCM’s proposal would have no significant impacts upon the rail network, and that the proposed output tonnes from WCM could be accommodated within the available train paths on the rail network. It was found in the cumulative impact scenario that if the Nugen project were to proceed, improvements to signalling on the Cumbria Coast Line could help to create more train paths.

Re-assessment due to coal preparation plant process change

The change to the coal preparation plant process will involve no changes in the following:

- Total coal output from the mine.
- Train movement requirements from the site to Redcar, Scunthorpe and Port Talbot; and,
- Operating hours of the rail loading facility.

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment finds that there will be no material change to the impacts identified in the original assessment. The reason for this is that there are no changes planned to the volume of coal to be transported from the mine, nor the types of trains or numbers of carriages, nor the operating hours of the rail loading facility.
Chapter 10: Landscape and Visual Impact

The basis of the original assessment was to ensure that the ES fully addressed the requirements of the EIA Regulations 2011, as well as requirements in the NPPF and local planning policy and landscape character assessment documents, including the LVIA Assessment Guidelines published by IEMA. A study area of 10km from the site was agreed with Cumbria County Council.

This report focuses on the assessment of the main mine site, because this is where the change to the coal preparation process will happen.

The ES identified the baseline conditions in and around the development site, along with existing and proposed developments off the site (for example, nearby housing), as well as long range views from footpaths and designated sites. A series of baseline photographs were taken from a range of viewpoints agreed with Cumbria County Council and external stakeholders including the National Trust.

Once the baseline conditions were established, a series of photomontages were created which showed the proposed development at various stages of its projected lifetime. The proposed development involves a series of long, relatively low buildings, with no hard edges, to soften the visual mass of the buildings. In conjunction with this process, visual screening landforms were designed for the main mine site to the south, east and north of the site, with no additional landform required to the west because the ground rises steeply to the west of the site, creating a natural visual barrier. Visual screens were designed in for the rail loading facility, involving low level and sympathetic building design, as well as extensive tree planting to screen views from the east.

The original assessment divided the proposal into four periods - construction, operation year 1, operation year 5, and operation year 12/15. The operational year assessments were phased to take account of the developing screening vegetation to be planted as part of the proposal.

The assessment then examined whether WCM’s proposal would have beneficial, neutral or adverse impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

As a result of this detailed assessment, it was found that the development of the main mine site would result in beneficial effects upon the landscape due to the extensive landscaping proposals. The overall effect on the landscape character at the main mine site would be in line with the Landscape Character Assessment vision and guidelines.

Re-assessment due to coal preparation plant process change

The coal preparation plant and coal storage areas are all housed within fully enclosed buildings. These buildings have been designed so as to minimise visual impact, as described above, and there will be extensive visual screening of the buildings.

The change to the coal preparation plant process will involve no changes in the following:

- Design, layout, dimensions and position of buildings.
- Colour of buildings; and,
- Construction of visual screening mounds and landscaping and planting schemes.

The building currently labelled as ‘Middlings Store’ on drawing number 869/AM/002 “Main Mine Site Proposed Plan” has been re-named (and drawings updated) as the Clean Coal and Reject Store and will be used as additional storage for metallurgical coal rather than middlings coal.

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment finds that there will be no material change to the impacts identified in the original assessment. The reason for this is that there are no changes planned to any aspect of the project which would impact on the landscape or visual character of the area.

Chapter 11: Ecology

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as requirements in the NPPF and local planning policy as well as guidance for assessment developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and species-specific legislative requirements and protected sites and areas in the vicinity of (but not located within) the development area.
The original assessment identified the baseline conditions in an agreed zone of influence via a range of surveys, records searches and consultation with statutory and non-statutory consultees and Cumbria County Council’s appointed ecological advisors. A Habitats Regulations Assessment (HRA) was also conducted in relation to several European Protected sites where potential impact mechanisms had been identified by Cumbria County Council’s ecological advisors.

Once the baseline conditions were established, ecological receptors were identified, and an impact assessment was conducted in accordance with good practice requirements and CIEEM guidelines. Where potentially significant impacts were identified, mitigation and compensation measures were discussed with CCC’s ecological advisors and included as part of the impact assessment.

An assessment of the residual effects of the development, once compensation and mitigation measures had been included, concluded that the majority of ecological impacts would be neutral. Beneficial impacts were identified as a result of habitat creation schemes. One locally significant adverse effect was identified as the loss of a small part of ancient replanted woodland is required.

Re-assessment due to coal preparation plant process change

The coal preparation plant and coal storage areas are all housed within fully enclosed buildings. There will be no change to the locations and methods of mining.

The change to the coal preparation plant process will involve no changes in the following:

- Locations and methods of mining.
- Red line boundary or area of operations; and,
- Habitat creation and mitigation schemes.

A re-examination of the basis, methods and outcomes for the original assessment was carried out. This re-assessment found that there will be no material change to the impacts identified in the original assessment. In short the reason for this is that there are no changes planned to any aspect of the project which would impact on any of the ecological aspect, areas, habitats or species identified in the ES.

Chapter 12: Hydrology and Hydrogeology

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as requirements in the NPPF and local planning policy.

The original assessment used a source-path-receptor approach to consider the likely impact of the proposed development compared to the baseline hydrology and hydrogeology. Where no source-pathway-receptor linkage could be proved, a risk of impact to a potential receptor was not considered to exist and therefore was not considered further. Where a linkage could be demonstrated, the significance of potential change was assessed.

In relation to the CHPP included in the planning application, the impacts on groundwater quality (from infiltration) and surface water quality (from runoff) from the operation of the plant were considered. Such impacts may arise from the accidental spillage or release of chemicals or fuels used to run and operate the plant. To mitigate these risks, the use of preventative measures in the design and use of these substances was recommended. Measures include the storage of chemicals and fuels in purpose built impermeable storage areas, with bunding to prevent the migration of pollutants off site. A draft Surface Water Management Plan submitted with the planning application included a range of control measures, such as drainage interceptors, to capture spillages in the site’s drainage network, removing pathways to potential receptors. Draft Environmental Management Plans were also submitted with the planning application, and included the requirement for the correct storage, handling and use of such substances, to prevent the risk of escape off-site.

The assessment concluded that the operation of the CHPP presented no significant risk and a negligible risk of impact.

Re-assessment due to coal preparation plant process change

As a result of the change to the coal preparation plant process, there will be no change to:

- Fuels and substances required for the processing operations.
- Safe storage, correct use and management of these fuels and substances.
Chapter 13: Ground Conditions and Contamination

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as any relevant requirements in the NPPF and local planning policy. Extensive engagement was undertaken by WCM with the Environment Agency (EA) and the Environmental Health Team at Copeland Borough Council (CBC), due to contamination at the main mine site as a result of the former industrial uses of the site.

The original assessment used information obtained from the EA’s extensive archive on the site, as well as CBC’s knowledge of the site. Previously undertaken site investigation and remediation reports were obtained from the EA (this work having been undertaken when the site was in earlier ownership).

A risk assessment was undertaken by WCM based on previous and proposed site uses, with the aim of informing a site investigation strategy to be approved by CCC and undertaken prior to the commencement of the construction phase.

In relation to the proposed location of the CHPP building, it was found that there may be residual contamination beneath this, however that this (and the whole of the rest of the main mine site) would need to be subject to a programme of site investigation. The results of this work would then inform a remediation strategy, to be approved by CCC.

The assessment concluded that there would be no significant effects from the development assuming that impact avoidance measures were implemented, along with any further mitigation measures identified as a result of the detailed design work.

Re-assessment due to coal preparation plant process change

As a result of the change to the coal preparation plant process, there will be no change to the location of the CHPP and coal storage buildings. As identified in the original ES, the site investigation and remediation works, to be agreed with the EA [and secured by planning conditions], and the detailed design of these buildings will identify measures required to minimise risks and impacts.

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment finds that there will be no material change to the impacts identified in the original assessment.

The proposed change to the coal processing plant is an administrative change only, with the building previously referred to as the Middlings Store being used instead primarily for the storage of reject material, prior to being returned underground as a paste. The store may also be used for Metallurgical coal on occasions if necessary.

The proposed development is already subject to a number of agreed planning conditions relating to ground conditions and contamination. These include, for example, a requirement for additional site investigation, risk assessment and potential remediation to be agreed with the regulators. Given that there are no proposed changes to any of the physical above ground or below ground elements of the development, no changes to the previous assessment of impacts associated with ground conditions and contamination, or the agreed planning conditions, are envisaged.
Chapter 14: Noise and vibration

The basis of the original assessment was to ensure that the ES fully addressed the applicable requirements of the EIA Regulations 2011, as well as relevant requirements in the NPPF, the Noise Policy Statement for England, and local planning policy. Consideration was also given to the legislative context around construction noise (Control of Pollution Act and Environmental Protection Act), to ensure that the impacts from construction related noise and vibration were considered. For operational noise, reference was made to the web-based resource Planning Practice Guidance.

The original assessment employed baseline noise levels gathered from four long term and one short term noise monitors placed at representative receptor locations agreed with CCC and CBC. The longer term monitors were in position for seven days, recording 24 hours a day in 15 minutes intervals.

A noise propagation model was developed for the site, which included a detailed ground model of the site and surroundings, the locations of all off-site receptors and the on-site noise sources. The model was employed to generate a series of noise predictions arising from the mine, for both the construction and operational phases. These predictions took account of factors such as machinery type and number, levels of sound insulation in the design of the buildings, locations of doors or other openings in the buildings, and hours of operation. Predictions of vibration levels were made, using standard tables in British Standard 5228 which relates to noise and vibration in construction.

The assessment then examined whether WCM’s proposal would have beneficial, neutral or adverse impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

The assessment concluded that there would be no significant effects from the development assuming that the identified mitigation measures were included. Permissible noise levels are now secured by planning condition.

Re-assessment due to coal preparation plant process change

As a result of the change to the coal preparation plant process, there will be no change to:

• The location of the CHPP and coal storage buildings.
• The design of the CHPP and coal storage buildings, including planned locations of openings and use of noise-baffling insulation.
• The hours of operation of the CHPP and coal storage buildings; and,
• The permitted noise levels at the main mine site, as secured by planning condition.

Re-examining the basis, methods and outcomes for the original assessment, this re-assessment concludes that there will be no material change to the impacts identified in the original assessment and that there would be no significant effects from the development (with the process change) assuming that the identified mitigation measures were included.

Chapter 15: Air Quality

The basis of the original assessment was to ensure that the ES fully addressed the requirements of the EIA Regulations 2011, as well as requirements in the NPPF, local planning policy, legislative requirements and DEFRA guidance on Local Air Quality Management. The legislation for air quality includes the Air Quality Standards Regulations 2016, concerning the potential for harm to human health, as well as related legislation under the Wildlife and Countryside Act and other wildlife and habitats legislation, because of the effects of poor air quality and dust deposition on species and habitats. An air quality study area was identified in line with guidelines set by the Institute of Air Quality Management.

The original assessment used baseline air quality levels gathered from a series of monitors placed at locations agreed with CCC and CBC. Additional background information on pollutant concentration in the local area was obtained from the DEFRA background pollutant maps.

A series of representative human-health sensitive and ecological sensitive receptors were identified, including residential properties and nationally and/or internationally designated ecological sites close to the Proposed Development and on the route of construction phase and operational phase traffic movements, as was the nature of potential emissions to air. Such emissions included construction phase dust emissions [such as that arising from the handling and storage of soils and dry materials during the construction process], site plant emissions [such as those associated with NRMM] and road traffic...
emissions (generated by construction vehicles attending site), and operational phase dust emissions (such as that generated by the handling, storage and processing of mined materials), road traffic emissions (associated with dispatch vehicles and staff vehicles accessing and leaving the site) and controlled emissions (from onsite energy plant and the main ventilation shaft).

A qualitative assessment of fugitive emissions was undertaken in line with IAQM guidance on construction dust assessments and minerals dust assessments, to identify the risk of dust impacts occurring and suggest the level of mitigation required to ensure that any effect is not significant, taking into account any measures incorporated into the Proposed Development design. The qualitative assessment took account of the proposed construction phase and operational phase sources, the number, proximity and direction of sensitive receptors and the meteorological conditions in the study area over a five-year period [including wind direction, wind speed and precipitation rates].

A quantitative assessment of road traffic emissions and controlled source emissions was undertaken in line with relevant guidance, including that published by the IAQM, DEFRA and the EA, using Advanced Dispersion Modelling System software. Dispersion models were built using receptor and emissions source data, along with modelled terrain data and a range of climatic data factors, including predominant wind speeds and direction, for a five year period. The road emissions model was also verified against the monitoring data gathered during the baseline survey, to align predictions with actual values and limit model bias, in line with DEFRA guidance.

From the qualitative and quantitative assessments, predictions were made as to likely impacts on the receptors identified and appropriate mitigation measures were recognised, where required, including the damping down of dry soils before they are handled. The most significant mitigation measures for the control of potential dust emissions from the CHPP are: first, the fully enclosed CHPP building, with a ventilation system fitted with bag filters to prevent the potential escape of dust; and second, the fact that the coal is damp throughout the mining, handling, processing and stockpiling process.

The assessment then examined whether WCM’s proposal would have beneficial, neutral or adverse impacts. Where impacts were identified, they were classified as either negligible, minor, moderate or major.

The assessment concluded that, assuming the identified mitigation measures were implemented, there would be no significant effects from dust deposition arising from the development. A requirement for air quality monitoring throughout the project is now secured by planning condition.

Re-assessment due to coal preparation plant process change

As a result of the change to the coal preparation plant process, there will be no change to:

- The number of vehicle movements associated with the Proposed Development;
- The ventilation systems of the CHPP and coal storage buildings;
- The fact that the coal going through the process is wet, and therefore unlikely to generate dust; and,
- The air quality monitoring conditions secured by planning conditions.

A re-examination of the basis, methods and outcomes for the original assessment found that there will be no material change to the impacts identified in the original assessment.

Conclusions

A change to the Coal Handling and Processing Plant has been proposed. This will eliminate the production of middlings coal. This will not change the amount of material mined, nor will it change the amount of the material leaving the mine. The change will be within the coal handling and processing plant, a fully enclosed building with noise emissions controlled by planning condition and dust emissions controlled by planning condition. The mine will still produce high-quality metallurgical coal for the steel making industry.

There will be no change to the structure, layout, dimensions or any other aspects of the buildings, and personnel numbers will remain the same.

Each relevant chapter of the original ES has been re-examined in light of the proposed change, and the conclusions relating to the potential environmental impacts of the original proposal have been re-examined in light of the proposed change.
It is found that there will be no material changes to the original conclusions of the Environmental Statement. Many aspects of the proposal, including noise levels and air quality, are subject to planning conditions. These planning conditions have already been found to be accepted by the relevant statutory consultees.

The proposed change to the coal processing will not impact the ability of the operation to comply with those conditions.
Part 2: Review and Suggested Changes to the ES documents relating to the removal of middlings coal production and Submission of GHG Assessment
PART 2: REVIEW AND SUGGESTED CHANGES RELATING TO THE REMOVAL OF MIDDINGS COAL PRODUCTION AND SUBMISSION OF GHG ASSESSMENT

Schedule

Table 1 below lists the documents that make up the WCM Environmental Statement, alongside the locations in those documents where middlings coal is referred to. Note that the terms ‘middlings’ coal and ‘industrial’ coal were used interchangeably in the application documents. Therefore, all such references in those documents have been removed.

Where no change is required to a Chapter or other document, no amendments have been made.

Using the information from Table 1, the following provides the amended text for those chapters in the Environmental Statement where middlings/industrial coal was mentioned. A colour-coding system is used to highlight text which is amended and replaced (green to yellow). New text is highlighted in blue, or deleted altogether with no replacement (red). The first entry in each case is the existing published text, the second entry is the amended text.

Proposed Amendments to Environmental Statement documents regarding CHPP process change.

Updates to Chapter 1 – Introduction

<table>
<thead>
<tr>
<th>Table 1.1 The EIA team</th>
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</thead>
<tbody>
<tr>
<td>Company</td>
</tr>
<tr>
<td>West Cumbria Mining</td>
</tr>
<tr>
<td>Stephenson Halliday Ltd</td>
</tr>
<tr>
<td>AECOM</td>
</tr>
<tr>
<td>BSG Ecology</td>
</tr>
<tr>
<td>Seastar Survey</td>
</tr>
<tr>
<td>ESI/Stantec</td>
</tr>
</tbody>
</table>
1.7.1 The ES presents an assessment of the likely significant environmental effects of the proposal and is structured as follows:

- Chapter 1: Introduction;
- Chapter 2: EIA Process;
- Chapter 3: Alternatives;
- Chapter 4: Site Context;
- Chapter 5: Project Description;
- Chapter 6: Planning Policy;
- Chapter 7: Socio Economic;
- Chapter 8: Road Transport;
- Chapter 9: Rail Transport;
- Chapter 10: Landscape and Visual;
- Chapter 11: Ecology;
- Chapter 12: Hydrology and Hydrogeology;
- Chapter 13: Ground Conditions and Contamination;
- Chapter 14: Noise;
- Chapter 15: Air Quality;
- Chapter 16: Historic Environment;
- Chapter 17: Impacts on the Marine Environment; and
- Chapter 18: Summary and Conclusions.

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- Chapter 18: Summary and Conclusions.

- Chapter 19: GHG Assessment.
Coal Processing Plant

3.2.65 During the early exploration phase of the project WCM engaged a Coal Handling and Preparation Plant (CHPP) design company to provide an outline design for the CHPP. This initial design suggested that the processing of the Run of Mine ("ROM") [the material which arrives at the surface as a result of the underground mining operations] into Metallurgical Coal would result in a by-product which was neither Metallurgical Coal nor reject material. Rather it was termed "Middlings Coal" which is something that could be sold and used for industrial processes such as cement making. This by-product would have been of much less value than the Metallurgical coal which the CHPP was intended to produce.

3.2.66 A key differentiator which define Metallurgical coal is its sulphur content. If the sulphur content is less than 2% then this aspect of the definition is met. The original design included a crushing of the ROM to a 3mm size, with the resultant Metallurgical coal having a sulphur content of less than 1.4% while the by-product middlings coal would be above the 2% threshold.

3.2.67 Since the initial design stage, WCM has kept the mine design and all aspects of the project under constant review and have discussed the design of the CHPP with other designers (with more laboratory test data) and as a result arrived at a design which does not produce a by-product. Consequently, the ROM will be processed into Metallurgical Coal and the unavoidable reject material only, consisting of the unusable waste rock from the ROM.

3.2.68 The primary change in the revised process is that the ROM would be crushed to 6mm, the resultant processing does not have a by-product but produces a Metallurgical coal with a marginally higher sulphur content than the original process (less than 1.6%).

3.2.69 Under the original design the CHPP would produce 2,430,000 tonnes per year of Metallurgical Coal and 350,000 tonnes of the by-product material. Under the revised design the CHPP will produce 2,780,000 tonnes of Metallurgical Coal per year.

3.2.70 There are additional materials handling benefits to this revised design. First, the handling of a secondary product would have required the need for the conveyors from the Marchon site to the RLF to be cleaned of Metallurgical coal prior to the transfer of the by-product material to the RLF. The hoppers at the RLF would also have required clearing out before the by-product material was handled and loaded onto trains. Once the by-product material had been conveyed to the RLF and loaded onto trains, the hoppers and conveyors would have to be cleaned again to ensure there was no cross-contamination of the metallurgical coal. The changes now proposed essentially dispense with the clearing out and cleaning processes described because the conveyors and hoppers will only be concerned with the transport of one product – Metallurgical coal.

3.2.71 WCM have confirmed these changes with Dr. N Bristow an independent consultant with significant experience in the coal and steel industry.
To Whom it may concern,

I, Dr Neil J. Bristow, with over 30 years’ experience in the metallurgical coal mining, marketing and steel making industries, confirm that I have reviewed the amended Coal Handling and Processing Plant proposal put forward by West Cumbria Mining. The primary objective of this proposal, and indeed of the mine itself, is to maximise the recovery of premium high grade metallurgical coal (known as High Vol A Hard Coking Coal, or HVA HCC) from the Run of Mine material extracted at the proposed Woodhouse Colliery.

The original proposal was to crush the Run of Mine (ROM) material to a topsize of 3mm and process it to maximise the volume of HVA HCC from the mined material. This approach would have resulted in a small portion of the resulting coal failing to meet the HVA HCC specification. In continuing to try and maximise the volume of HVA HCC material from the Run of Mine product extracted, I understand that a second coal processing specialist has reviewed the coal preparation process, in conjunction with further analytical results from coal samples obtained offshore. The original coal preparation process has been refined to the effect that the Run of Mine material will now be crushed to a topsize of 6mm and then processed. This change will enable all of the resulting coal to meet the grade of HVA HCC coal, for which there is a proven market in the steel making industry. The higher topsize should also prove beneficial in improving the handleability of the resultant product metallurgical coal.

Yours Sincerely

Dr Neil J. Bristow
Managing Director/Chief Consultant
H & W Worldwide Consulting Pty Ltd

H&W Worldwide Consulting Pty Ltd
PO Box 372, Beresfield, NSW, 2322, Australia
Tel: +61240286268  Email neil.j.bristow@hwworldwideconsult.com
### Updates to Chapter 5 – Project Description

**5.14** Mined coal will be brought to the surface along with ‘overburden’ material (comprising rock that is unavoidably mined along with the coal) by underground conveyor systems. It will take approximately 5 years from start of mining to ramp up to peak mining (see Table 5.3), which is expected to yield **2.8 million tonnes of saleable coal per annum** (of which about **2.43 million tonnes will be metallurgical coal and 350,000 middlings coal**). The remaining material is known as reject, and comprises rock overburden as well as a portion of unsaleable coal. The amount of reject is dictated by localised geology of coal seams.

A by-product material would be produced due to the nature of the coal washing process and the need to ensure as high a quality coking coal product as possible. As such, during the washing, a certain proportion of the coal would be rejected as being outside of the main required specification, but still has good properties for use in specific industrial processes. The by-product coal material is called middlings coal.

The middlings product would not be suitable for burning in traditional thermal power plants due to its inherent characteristics and the nature of the boilers, but it would be suitable to be used in specific processes such as cement manufacture which use alternative designs of boilers and employ gas scrubbing technology to minimize environmental impacts.

WCM propose to only sell this by-product to specific non-power generating industries as a replacement for other materials they may elect to burn to get sufficient heat to support production. In a number of cases the emissions resultant from the use of this middling coal will be less significant than the burning of other material such as imported coal or wood.

The middling coal will be transported from site by rail in the same way as the metallurgical coal, thus there is no road traffic impact from the mine arising from the transport of the middling product.

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---

5.3.28 Following completion of the access roads construction of the buildings and structures that comprise the main mine site can commence. The Main Mine Site would comprise:

- Coal Handling and Process Plant (CHPP) incorporating a backfill plant for managing reject material from coal processing;
- **Middlings product building**;
- Office/Change building;
- Workshop;
- Drift Canopy and mine portals;
- Vent House;
- Power Building;
- Conveyor Shaft Drive Building;
- Gatehouse;
- Access roads and car parking;
- Drift access; and
- Bunds, planting and fencing.

5.3.28 Following completion of the access roads construction of the buildings and structures that comprise the main mine site can commence. The Main Mine Site would comprise:

- **Clean Coal and Reject Store**;
- Office/Change building;
- Workshop;
- Drift Canopy and mine portals;
- Vent House;
- Power Building;
- Conveyor Shaft Drive Building;
- Gatehouse;
- Access roads and car parking;
- Drift access; and
- Bunds, planting and fencing.
5.3.33 The processing plant would produce three products: metallurgical coal, middlings coal and reject material. The metallurgical coal product would be referred to as clean coal, which would be stored in the western arm. The middlings coal would be transported to a separate storage building using an enclosed above ground conveyor. Reject material from the coal washing process would be converted into a pumpable paste in the paste backfill plant to be returned underground via a pipeline where it will be placed in the voids that would have been created by the extraction of the coal.

5.3.34 The middlings store is the second building designed by Geometrica and employs the same space frame building technology as the CHPP. The building design is for a single longitudinal dome with curved roof and building ends. Its length at its longest section would be 125.5 metres and 59 metres wide. As with the larger building it would sit on a 1.5 metre high concrete plinth and at its highest point the structure would be 20 metres above ground level. The design and dimensions of the Middlings Store are illustrated on drawings 869/AM/031 and 869/AM032.

5.3.34 The Clean Coal and Reject Store is the second building designed by Geometrica and employs the same space frame building technology as the CHPP. The building design is for a single longitudinal dome with curved roof and building ends. Its length at its longest section would be 125.5 metres and 59 metres wide. As with the larger building it would sit on a 15 metre high concrete plinth and at its highest point the structure would be 20 metres above ground level. The design and dimensions of the Clean Coal and Reject Store are illustrated on drawings 869/AM/031 and 869/AM032. This store’s primary use is the temporary storage of reject material, it also provides a buffer space for clean coal should the main clean coal store become full. The materials within the store are separated by a dividing internal wall. Originally the building would have housed the by-product from the coal processing and the reject material awaiting return underground as a paste.

5.3.35 The middlings coal would be stored in the middlings store and from there be transported by underground conveyor to the long conveyor which would transport the material to the RLF.

5.3.35 Deleted

5.3.36 The RLF is proposed to be located on the western side of the Cumbrian Coast rail line in the Pow Beck Valley. It will provide the infrastructure required to load the metallurgical coal and middlings coal into freight trains for delivery to market. The design objective for the building has been to minimise its landscape and visual impacts within the largely undeveloped Pow Beck valley.

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### Table 5.3 Anticipated Production Levels

<table>
<thead>
<tr>
<th>Production</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallurgical Coal</td>
<td>410,000</td>
<td>770,000</td>
<td>1,390,000</td>
<td>2,060,000</td>
<td>2,450,000</td>
</tr>
<tr>
<td>Middlings Coal</td>
<td>100,000</td>
<td>150,000</td>
<td>210,000</td>
<td>500,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Reject Material</td>
<td>50,000</td>
<td>90,000</td>
<td>110,000</td>
<td>160,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>

### Table 5.3 Anticipated Production Levels

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<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallurgical Coal</td>
<td>480,000</td>
<td>900,000</td>
<td>1,800,000</td>
<td>2,360,000</td>
<td>2,780,000</td>
</tr>
<tr>
<td>Reject Material</td>
<td>50,000</td>
<td>90,000</td>
<td>110,000</td>
<td>160,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>
5.4.15 For the remaining operational period of the mine, nominally 50 years annual production, outputs are anticipated to remain at or around 3.0 to 3.5 (up from an initial estimate of 3.15 due to higher amount of reject material within the ROM, as a result of the mining methods to be employed) million tonnes of Run of Mine depending on mine production scheduling requirements being met. Whilst the amount of Run of Mine may vary in future years, it is forecast that coal volumes will remain steady, at 2.78 million tonnes per annum of Metallurgical Coal and 350,000 tonnes per annum of middlings coal. Of this the majority of the coal produced would be metallurgical coal and to a much lesser extent middling coal. These coal products are the saleable output of the mine would be transported via the underground conveyor to the RLF for transportation to market. The anticipated destinations for the products are Redcar Bulk Terminal, Scunthorpe and Port Talbot. The Redcar terminal is also the anticipated location for the middling coal. Table 5.4 sets out the anticipated destinations for the initial 5 year period.

Table 5.4 Product Market Locations Years 1-5

<table>
<thead>
<tr>
<th>Year</th>
<th>Million Tonnes</th>
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<tbody>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>2</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
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<tr>
<td>5</td>
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</tbody>
</table>

- Redcar BT (HV Coking Coal)
- Scunthorpe (HV Coking Coal)
- Port Talbot (HV Coking Coal)
- Redcar BT (Middling Coal)
5.4.54 The conveyors from the raw coal store would feed the coal preparation plant at a maximum rate of 500 tonnes per hour. The first process involves crushing the raw coal to sub 6.5 mm size. This will be another point in the process where any entrapped methane can be captured for utilization. The coal would then be washed in two circuits. The 6.5 mm to 0.15 mm size coal would be washed in Heavy Media Cyclones. The coal under 0.15 mm would be washed in froth flotation cells.

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5.4.59 The middlings coal would be stored in the separate ‘Middlings Store’ building which is located just to the west of the CHPP building. Middling product would be delivered by an above ground enclosed conveyor from the CHPP to the Store. The middlings stockpile capacity is designed to be 3,400 tonnes. An underground reclaim conveyor would transport middlings coal to the underground conveyor linking the site to the RL.

5.4.64 Clean coal and middling coal would be transported from the site by the underground conveyor. The conveyor would be designed to have a transport throughput of 1,500 tonnes per hour. At the conveyor head the material would enter the coal loading building where it is loaded into low level loading hoppers, before being discharged into train wagons for onward transportation to market.

5.4.67 Metallurgical coal will primarily be moved to the port of Redcar, for onward shipping to steel producers in mainland Europe. The remainder of the metallurgical coal will be moved by train to British steel plants in Scunthorpe and Port Talbot. Middlings coal will also be moved by rail to Redcar, for export to industrial plants in mainland Europe.

5.4.68 The RLF will operate from 0600 - 2200 Monday to Saturday.
The reject material from the coal processing process will generally comprise fine material, which due to the coal processing techniques to be employed by WCM to produce the clean metallurgical and middling coal will nominally be less than 5mm in size.

Appendix D

At full annual production rates, the mine will extract between 3.0 million and 3.5 million tonnes of run of mine material (ROM) which will be presented to the coal handling and processing plant (CHPP). The CHPP will produce two output streams. The first output stream, comprising the vast majority of mined material will be high quality metallurgical coal destined for the UK and European steel making industry. The other output stream from the CHPP will be reject material made up of mainly non-combustible material which will have been mined along with the coal by virtue of the mining method used and will have been washed out of the ROM coal during the coal washing process in the CHPP. It is this reject material that is the subject of this technical note.

Updates to Chapter 6 – Planning Policy

6.1.2 Firstly, however, it is pertinent to set out the political landscape in the light of changes which have occurred over the last couple of years to provide the international, national and regional political context for the proposals. The EU referendum result has led to considerable uncertainty about the shape of the UK’s future relationship with its European neighbours. The UK’s withdrawal from the European Union is currently taking place within the transitional period to end of 2020. There remains a significant amount of negotiation concerning the ‘shape’ of the UK’s departure and as yet it is unclear what the implications would be for British industry. What is certain, however, is the Government’s commitment to ensure that the UK continues to trade competitively with its existing and new international trading partners.

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6.1.3 At a national level there has similarly been some uncertainty about the 'Northern Powerhouse' concept/brand since the change in Government. The northern powerhouse was an initiative introduced and pursued by the previous Chancellor, George Osbourne. With his departure, it was unclear whether or not the new administration would continue to support the concept. However, The Northern Powerhouse strategy published in November 2016 seeks to tackle barrier to productivity to realise the full economic potential of the North. The strategy includes significant investment including £13 billion on transport and £3.3 billion going to local enterprise partnerships.

6.1.3 Deleted

6.1.4 In summary, the UK Government’s administration appears committed to ensuring that the UK continues to trade effectively with all of its international partners and that the national economy is re-balanced with a greater role/contribution from the north of England.

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6.4 NATIONAL PLANNING POLICY FRAMEWORK JULY 2018

6.4.1 The second version of the National Planning Policy Framework (NPPF) was issued in July 2018. The framework set out the Government’s planning policies for England and how these should be applied.

6.4 NATIONAL PLANNING POLICY FRAMEWORK FEBRUARY 2019

6.4.1 The NPPF was first introduced in 2012, it has been the subject of subsequent amendment the last of which resulted in the version published in February 2019. The framework set out the Government’s planning policies for England and how these should be applied.

6.6.1 In addition to minerals, there are a number of other Planning Practice Guidance documents which address specific topic areas. The considerations in respect of these topics are largely picked up in the PPG for minerals which identifies the potential impacts and issues associated with minerals developments. Planning Practice Guidance documents have been prepared for the following topics of relevance to the Proposal:

- Air quality;
- Conserving and enhancing the historic environment;
- Design;
- Flood risk and coastal change;
- Health and wellbeing;
  - Land affected by contamination;
  - Land stability;
  - Light pollution;
  - Natural environment;
  - Noise;
  - Travel plans, transport assessment and statements in decision taking; and
  - Water supply, wastewater and water quality.

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6.7.1 The Application Site is located entirely within the administrative boundary of Cumbria County Council. The current Development Plan for the area comprises:

- Cumbria Minerals and Waste Development Local Plan Adopted September 2017; and

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- Copeland Local Plan 2013-2028 – Core Strategy and Development Management Policies [adopted December 2013] and
## Table 6.1: Relevant Planning Policies

<table>
<thead>
<tr>
<th>CUMBRIA MINERALS AND WASTE LOCAL PLAN</th>
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<tbody>
<tr>
<td>SPI</td>
<td>Presumption in favour of sustainable development</td>
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<td>SPI3</td>
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Copeland Local Plan 2013 – 2028 Core Strategy and Development Management Policies DPD

### Core Strategy Policies

| ST1                                                                                     | Strategic Development Principles                  |
| ST2                                                                                     | Spatial Development Strategy                       |
| ST3                                                                                     | Strategic Development Priorities                   |
| ST4                                                                                     | Providing Infrastructure                           |
| ER1                                                                                     | Developing Enterprise and Skills                    |
| ENV1                                                                                     | Flood Risk and Risk Management                     |
| ENV3                                                                                     | Biodiversity and Geodiversity                       |
| ENV4                                                                                     | Heritage Assets                                    |
| ENV5                                                                                     | Protecting and Enhancing the Borough’s Landscapes  |
| ENV6                                                                                     | Access to the Countryside                           |

### Development Management Policies

| DM3                                                                                     | Safeguarding Employment Areas                      |
| DM10                                                                                    | Achieving Quality of Space                         |
| DM11                                                                                    | Sustainable Development Standards                  |
| DM22                                                                                    | Accessible Developments                            |
| DM24                                                                                    | Development Proposals and Flood Risk               |
| DM25                                                                                    | Protecting Nature Conservation Sites, Habitats and Species |
| DM26                                                                                    | Landscaping                                        |
| DM27                                                                                    | Built Heritage and Archaeology                     |
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<tr>
<td>DC6</td>
<td>Cumulative environmental impacts</td>
</tr>
<tr>
<td>DC13</td>
<td>Criteria for energy minerals</td>
</tr>
<tr>
<td>DC16</td>
<td>Biodiversity and geodiversity</td>
</tr>
<tr>
<td>DC17</td>
<td>Historic environment</td>
</tr>
<tr>
<td>DC18</td>
<td>Landscape and visual impact</td>
</tr>
<tr>
<td>DC19</td>
<td>Flood risk</td>
</tr>
<tr>
<td>DC20</td>
<td>The water environment</td>
</tr>
<tr>
<td>DC21</td>
<td>Protection of soil resources</td>
</tr>
<tr>
<td>DC22</td>
<td>Restoration and aftercare</td>
</tr>
</tbody>
</table>

**Copeland Local Plan 2013 – 2028 Core Strategy and Development Management Policies DPD**

<table>
<thead>
<tr>
<th>Core Strategy Policies</th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ST1</td>
<td>Strategic Development Principles</td>
</tr>
<tr>
<td>ST2</td>
<td>Spatial Development Strategy</td>
</tr>
<tr>
<td>ST3</td>
<td>Strategic Development Priorities</td>
</tr>
<tr>
<td>ST4</td>
<td>Providing Infrastructure</td>
</tr>
<tr>
<td>ER11</td>
<td>Developing Enterprise and Skills</td>
</tr>
<tr>
<td>ENV1</td>
<td>Flood Risk and Risk Management</td>
</tr>
<tr>
<td>ENV2</td>
<td>Coastal Management</td>
</tr>
<tr>
<td>ENV3</td>
<td>Biodiversity and Geodiversity</td>
</tr>
<tr>
<td>ENV4</td>
<td>Heritage Assets</td>
</tr>
<tr>
<td>ENV5</td>
<td>Protecting and Enhancing the Borough’s Landscapes</td>
</tr>
<tr>
<td>ENV6</td>
<td>Access to the Countryside</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Development Management Policies</th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DM3</td>
<td>Safeguarding Employment Areas</td>
</tr>
<tr>
<td>DM10</td>
<td>Achieving Quality of Space</td>
</tr>
<tr>
<td>DM11</td>
<td>Sustainable Development Standards</td>
</tr>
<tr>
<td>DM22</td>
<td>Accessible Developments</td>
</tr>
<tr>
<td>DM24</td>
<td>Development Proposals and Flood Risk</td>
</tr>
<tr>
<td>DM25</td>
<td>Protecting Nature Conservation Sites, Habitats and Species</td>
</tr>
<tr>
<td>DM26</td>
<td>Landscaping</td>
</tr>
<tr>
<td>DM27</td>
<td>Built Heritage and Archaeology</td>
</tr>
</tbody>
</table>

**COPELAND LOCAL PLAN 2013-2028 - PROPOSALS MAP AND COPELAND LOCAL PLAN ‘SAVED POLICIES DOCUMENT PRODUCED IN JUNE 2015**

<table>
<thead>
<tr>
<th>EMPS</th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMP3</td>
<td>Employment Opportunity Sites</td>
</tr>
</tbody>
</table>
6.8.1 Copeland Borough Council is in the process of preparing a Site Allocations and Policies document which is designed to deliver on the
ground the Core Strategy. A preferred options document published in January 2015 set out some preferred options for the implementation
of the Core Strategy, including some proposed site allocations policies. There is one proposed policy of relevance to the proposals which is
Proposed Policy SA7.

Appendix 6.1 Introduction
The current Development Plan for the area comprises:
• Cumbria Minerals and Waste Local Plan (adopted September 2017); and
• Copeland Local Plan 2013-2028 – Core Strategy and Development Management Policies
  (adopted December 2013).

Appendix 6.1 Introduction
The current Development Plan for the area comprises:
• Cumbria Minerals and Waste Local Plan (adopted September 2017); and

Page 29 before ENV 3 – Biodiversity and Geodiversity insert:
Policy ENV2 – Coastal Management
To reinforce the Coastal Zone’s assets and opportunities the Council will:
A. Promote the developed coast as a destination for leisure, culture and tourism, with strong links to Whitehaven Harbour / town
centre in the north and to Millom in the south
B. Maximise opportunities along the undeveloped coast for tourism and outdoor recreation through support for the North West
Coastal Trail and Colourful Coast projects
C. Support the management of more of the undeveloped coast for biodiversity
D. Support energy generating developments that require a coastal location along the undeveloped coast, provided that the
potential impacts on biodiversity, landscape and heritage assets are carefully assessed against the benefits. Where negative
impacts are likely these must be mitigated against and compensated for
E. Protect the intrinsic qualities of the St Bees Head Heritage Coast in terms of development proposals within or affecting views from
the designation. At the same time encourage schemes which assist appropriate access to and interpretation of the Heritage Coast
area

Work with partners to manage the risks associated with coastal erosion and flooding and ensure that all new development is located outside
areas identified as being at risk either now or in future phases of the Shoreline Management Plan.

At the end of Appendix 6.1 include.

POLICY EMP 3. Employment Opportunity Sites

Areas of land at Whitehaven, Cleator Moor and Egremont have been delineated on the Proposals Map as Employment Opportunity Sites. These areas are being investigated as to their future development potential and contribution they can make to the regeneration strategies in the Borough. Detailed implications and locational issues associated with these sites will be the subject of future planning policy documents as soon as practicably possible.
Replace Appendix 6.2 in full

Emerging Policy Documents

Copeland Borough Council – Issues and Options

Copeland Borough Council has recognised that there have been several changes to both the local and national policy context since the adoption of their current local plan was adopted in 2013. It identifies these as:

- Updates to the National Planning Policy Framework (NPPF) [2019]
- The Council’s new Housing Strategy [2018-2023]
- Production of the new Copeland Growth Strategy: Copeland Vision
- The Council’s Corporate Plan
- Cumbria Local Industrial Strategy
- The pause of the Moorside project
- Changes to Sellafield’s missions and the opportunities that this can provide
- Availability of Government funding
- Changes to shopping patterns and the role and function of our town centres

(Copeland Local Plan 2017-2035 – Issues and Options Draft 2019)

In the light of these changes the Council is seeking to replace the current local plan with a new Local Plan. They have prepared an Issues and Options consultation document as the first stage of this process. The Issues and Options document identifies the key issues currently facing the Borough and sets out various options for addressing them. The Issues and Options Document has been the subject of a consultation period which expired in January 2020.

The document includes no development plan polices but asks questions seeking views on the volume and distribution of future development in the Borough over the plan period.

Updates to Chapter 8 – Road Transport

Table 8.1 Annual number of road miles for coal deliveries required at peak mine production

<table>
<thead>
<tr>
<th>Coal Destination &amp; distance from Whitehaven</th>
<th>Type &amp; Volume of coal received</th>
<th>Number of truck movements and road miles required (assume articulated wagons with 29 tonne capacity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redcar = 128 miles via A66</td>
<td>Met coal = 2.06 million tonnes, Middlings coal = 350,000 tonnes</td>
<td>83,103 truck movements one way = 10.6 million miles</td>
</tr>
<tr>
<td>Scunthorpe = 186 miles via A66</td>
<td>Met coal = 180,000 tonnes</td>
<td>6,207 truck movements = 1.2 million miles</td>
</tr>
<tr>
<td>Port Talbot = 346 miles via M6</td>
<td>Met coal = 180,000 tonnes</td>
<td>6,207 truck movements = 2.2 million miles</td>
</tr>
</tbody>
</table>

Table 8.1 Annual number of road miles for coal deliveries required at peak mine production

<table>
<thead>
<tr>
<th>Coal Destination &amp; distance from Whitehaven</th>
<th>Type &amp; Volume of coal received</th>
<th>Number of truck movements and road miles required (assume articulated wagons with 29 tonne capacity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redcar = 128 miles via A66</td>
<td>Met coal = 2.42 million tonnes</td>
<td>83,103 truck movements one way = 10.6 million miles</td>
</tr>
<tr>
<td>Scunthorpe = 186 miles via A66</td>
<td>Met coal = 180,000 tonnes</td>
<td>6,207 truck movements = 1.2 million miles</td>
</tr>
<tr>
<td>Port Talbot = 346 miles via M6</td>
<td>Met coal = 180,000 tonnes</td>
<td>6,207 truck movements = 2.2 million miles</td>
</tr>
</tbody>
</table>
Updates to Chapter 9 – Rail Transport

Table 9.1 Number of road miles for coal deliveries required at peak mine production

<table>
<thead>
<tr>
<th>Coal Destination &amp; distance from Whitehaven</th>
<th>Type &amp; Volume of coal received</th>
<th>Number of truck movements and road miles required (assume articulated wagons with 29 tonne capacity)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Met coal = 2.06 million tonnes</td>
<td>83,103 truck movements one way = 10.6 million miles</td>
</tr>
<tr>
<td>Scunthorpe = 186 miles via A66</td>
<td>Met coal = 184,000 tonnes</td>
<td>6,345 truck movements = 1.2 million miles</td>
</tr>
<tr>
<td>Port Talbot = 346 miles via M6</td>
<td>Met coal = 184,000 tonnes</td>
<td>6,345 truck movements = 2.2 million miles</td>
</tr>
</tbody>
</table>

Table 9.3 Forecast Output of the Mine & Coal Destination

<table>
<thead>
<tr>
<th>Product</th>
<th>Destination</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met. Coal</td>
<td>Redcar Bulk Terminal</td>
<td>30,000</td>
<td>60,000</td>
<td>90,000</td>
<td>120,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Met. Coal</td>
<td>Scunthorpe Steelworks</td>
<td>30,000</td>
<td>60,000</td>
<td>90,000</td>
<td>120,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Met. Coal</td>
<td>Port Talbot Steelworks</td>
<td>30,000</td>
<td>60,000</td>
<td>90,000</td>
<td>120,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Destination</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met. Coal</td>
<td>Redcar Bulk Terminal</td>
<td>420,000</td>
<td>780,000</td>
<td>1,140,000</td>
<td>1,500,000</td>
<td>1,860,000</td>
</tr>
<tr>
<td>Met. Coal</td>
<td>Scunthorpe Steelworks</td>
<td>30,000</td>
<td>60,000</td>
<td>90,000</td>
<td>120,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Met. Coal</td>
<td>Port Talbot Steelworks</td>
<td>30,000</td>
<td>60,000</td>
<td>90,000</td>
<td>120,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>
Updates to Chapter 10 – LVIA

10.7.15 The proposed development comprises the following components/features which are relevant to landscape and visual issues:

Main Mine Site
- The Geometrica dome building enclosing the Coal Handling and Process Plant building (CHPP);
- Coal stores;
- Middlings product building;
- Office/Change building;
- Workshop;
- Drift Canopy and mine portals;
- Vent House;
- Power Building;
- Conveyor Shaft Drive Building;
- Gatehouse;
- Access roads and car parking;
- Drift access; and
- Bunds, planting and fencing.

10.11.30 As illustrated by Viewpoint 3d-e, night time lighting would appear unobtrusive from this elevated location. Designed to minimise upward light spill, the mass of the CHPP, coal stores and Middlings store would not be obvious at night time. Seen in the context of the wider Whitehaven urban area and its extensive and mixed lighting including street lighting, residential areas and distant floodlighting, the proposed development would not appear out of character.

10.7.15 The proposed development comprises the following components/features which are relevant to landscape and visual issues:

Main Mine Site
- The Geometrica dome building enclosing the Coal Handling and Process Plant building (CHPP);
- Coal stores;
- **Clean Coal and Reject material** building;
- Office/Change building;
- Workshop;
- Drift Canopy and mine portals;
- Vent House;
- Power Building;
- Conveyor Shaft Drive Building;
- Gatehouse;
- Access roads and car parking;
- Drift access; and
- Bunds, planting and fencing.

10.11.30 As illustrated by Viewpoint 3d-e, night time lighting would appear unobtrusive from this elevated location. Designed to minimise upward light spill, the mass of the CHPP, coal stores and **Clean Coal and Reject material building** would not be obvious at night time. Seen in the context of the wider Whitehaven urban area and its extensive and mixed lighting including street lighting, residential areas and distant floodlighting, the proposed development would not appear out of character.
Updates to Chapter 15 – Air Quality

Figure 15.14: Physical Properties and Emissions from Emergency Power Generation plant – per Boiler

<table>
<thead>
<tr>
<th>Building</th>
<th>Grid Ref</th>
<th>Length/ Diameter (m)</th>
<th>Width (m)</th>
<th>Height (m)</th>
<th>Angle (º)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Coal Store</td>
<td>296643, 515519</td>
<td>78</td>
<td>146</td>
<td>27</td>
<td>141.28</td>
</tr>
<tr>
<td>Clean Coal Store</td>
<td>296660, 515688</td>
<td>78</td>
<td>148</td>
<td>27</td>
<td>515</td>
</tr>
<tr>
<td>CHPP Building</td>
<td>296740, 515593</td>
<td>1271</td>
<td>n/a</td>
<td>34</td>
<td>n/a</td>
</tr>
<tr>
<td>Middlings Store</td>
<td>296588, 515633</td>
<td>59.33</td>
<td>125</td>
<td>20</td>
<td>515</td>
</tr>
<tr>
<td>Fan House</td>
<td>296529, 515505</td>
<td>49.43</td>
<td>311</td>
<td>9.65</td>
<td>164.49</td>
</tr>
<tr>
<td>Water Tank</td>
<td>296523, 515556</td>
<td>40.21</td>
<td>n/a</td>
<td>9.75</td>
<td>n/a</td>
</tr>
<tr>
<td>Substation</td>
<td>296496, 515689</td>
<td>26.25</td>
<td>29.733</td>
<td>4</td>
<td>111.8</td>
</tr>
<tr>
<td>Diesel Generator House</td>
<td>296483, 515650</td>
<td>9.18</td>
<td>10.5</td>
<td>4</td>
<td>153.43</td>
</tr>
<tr>
<td>East-South Drift Canopy</td>
<td>296517, 515375</td>
<td>45.93</td>
<td>22.41</td>
<td>7.64</td>
<td>51.5</td>
</tr>
<tr>
<td>Workshop</td>
<td>296587, 515377</td>
<td>21.12</td>
<td>37.38</td>
<td>7.52</td>
<td>5185</td>
</tr>
<tr>
<td>Changing Rooms</td>
<td>296656, 515430</td>
<td>27.95</td>
<td>46.59</td>
<td>4.86</td>
<td>1411</td>
</tr>
<tr>
<td>Offices</td>
<td>296687, 515455</td>
<td>33.89</td>
<td>33.47</td>
<td>11.24</td>
<td>14167</td>
</tr>
</tbody>
</table>

Updates to Chapter 17 – Marine Chapter

10.11.30 The planned annual production after 5 years will reach a steady state and is estimated at 2,430,000 tonnes of metallurgical coal, 150,000 tonnes of middling coal and 150,000 tonnes of reject. The reject will be blended with water and a binder (e.g. cement) and the resultant paste material will be pumped back underground and placed directly behind a working panel as it is mined. When used, the paste will fill an estimated 65 % of the void space behind a worked panel. The use of the paste backfill will significantly increase the stability of mined-out areas and subsidence over backfilled panels will be reduced by at least 65 %. This applies to both single panels and to groups of panels. For example, for a single panel with 65 % backfill the maximum vertical displacement will be reduced from 21 cm to 9 cm. There will be sufficient paste produced each year to fill two of the eight panels mined each year, i.e. 25 % of panels will be backfilled. Backfill will be primarily targeted to sensitive areas including all onshore panels and selected panels close to the MCZ.

10.11.30 The planned annual production after 5 years will reach a steady state and is estimated at 2,780,000 tonnes of metallurgical coal, and 150,000 tonnes of reject. The reject will be blended with water and a binder (e.g. cement) and the resultant paste material will be pumped back underground and placed directly behind a working panel as it is mined. When used, the paste will fill an estimated 65 % of the void space behind a worked panel. The use of the paste backfill will significantly increase the stability of mined-out areas and subsidence over backfilled panels will be reduced by at least 65 %. This applies to both single panels and to groups of panels. For example, for a single panel with 65 % backfill the maximum vertical displacement will be reduced from 21 cm to 9 cm. There will be sufficient paste produced each year to fill two of the eight panels mined each year, i.e. 25 % of panels will be backfilled. Backfill will be primarily targeted to sensitive areas including all onshore panels and selected panels close to the MCZ.
Updates to Chapter 18 – Summary and Conclusions

Table 18.1 Summary of Predicted Residual Effects

<table>
<thead>
<tr>
<th>Ecology</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ecological impact assessment concludes that the majority of impacts on ecology and biodiversity would be neutral. It identifies an adverse impact at a local level for the loss of ancient semi-natural woodland soil structure. However, it also identifies site level beneficial impacts on breeding birds would result from the creation of new areas of scrub, species-rich grassland and other habitats; a site level beneficial impact on bats as replanted woodland matures; and site level beneficial impacts for amphibians in the longer term the creation of multiple small wetland features and areas of tussocky grassland as part of the landscaping within the Site.</td>
</tr>
</tbody>
</table>

Updated comprehensive extended phase 1 update survey of the entire redline boundary (to include MMS, RLF, Woodend, Conveyor, RLF access and woodlands). This survey comprised a re-map of all habitats to allow for the creation of a baseline update. The survey included an update for birds, otter, badger, red squirrel, and reptiles. There were no changes to the baseline habitat conditions found in the original Assessment, therefore there are no material changes which would alter the findings and conclusions of the original Assessment.

New entry at the end of Table 18.1

<table>
<thead>
<tr>
<th>GHG Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Greenhouse Gas (GHG) Assessment has been undertaken for the construction, operation, and decommissioning of the mine. In accordance with national and international guidelines and methodologies, the Assessment compared the calculated emissions with the UK Carbon Budgets, which cover 5-year periods up until the year 2032. Up until this time, which accounts for all of the construction phase and some of the operational phase, the GHG emissions from the mine will amount to significantly less than 1% of the UK’s carbon budget. This puts the impact of these emissions into the minor adverse category. Future carbon budgets beyond the year 2032 have not yet been published by the Government, however WCM has entered into a legal agreement to ensure that it will undertake an assessment of its emissions against future carbon budgets.</td>
</tr>
</tbody>
</table>
Updates to Non Technical Summary

Page 5 Main Mine site drawing
Page 6 - Metallurgical and middlings coal will go to the port of Redcar for export to European steel and industrial plants.

Page 6 - Metallurgical coal will go to the port of Redcar for export to European steel and industrial plants.

Page 9 - At full annual production the mine will extract:
- 2.43 million tonnes of metallurgical coal;
- 350,000 tonnes of lower grade middlings coal; and
- 150,000 tonnes of rock overburden (reject)

Metallurgical and middlings coal will go to the port of Redcar for export to European steel and industrial plants.

Page 9 - At full annual production the mine will extract:
- 2.78 million tonnes of metallurgical coal; and
- 150,000 tonnes of rock overburden (reject).

New entry at bottom of page 13

**Climate Change**

WCM commissioned an independent Greenhouse Gas (GHG) Assessment of emissions arising from the construction, operation and decommissioning of the mine, to examine whether the mine would have a significant impact upon climate change. This Assessment concluded that the calculated emissions from the mine are, up until the year 2032, less than 1% of the UK's carbon budget and classed as of minor adverse significance. Beyond the year 2032, it is currently impossible to calculate the significance of the mine's emissions because the UK carbon budgets against which they are assessed, have not been published. WCM has committed to periodically reassessing its GHG emissions throughout the life of the mine and implement accredited offset and emissions reduction strategies where required.
PART 3. GREENHOUSE GAS EMISSIONS

Cumbria Metallurgical Coal Project
GHG Assessment
West Cumbria Mining

6 May 2020
Part 4. Updated Drawing Register
PART4. UPDATED DRAWING REGISTER

All the drawings submitted with the original planning application have been reviewed to identify references to middlings coal. The following drawings have been updated to remove those references. There have been no changes to the designs themselves, nor to any aspect of the proposed structures or layout.

- 869/AM/002 Rev E - Main Mine site-Proposed Plan
- 869/AM/006 Rev C - Main Mine site-Site cross sections
- 869/AM/008 Rev B- Main Mine Site-Finished Level Cut and Fill Representation
- 869/AM/027 Rev D- Main Mine site- Clean/raw coal & CHPP building, Proposed Plan
- 869/AM/028 Rev B- Main Mine site- Clean/raw coal & CHPP building, Proposed elevations sheet 1 of 2
- 869/AM/029 Rev C- Main Mine site- Clean/raw coal & CHPP building, Proposed elevations sheet 2 of 2
- 869/AM/030 Rev B- Main Mine site- CHPP Access & Welfare building, Proposed Plan & elevations
- 869/AM/031 Rev B- Main Mine site-Middlings store, Proposed plan
- 869/AM/032 Rev B- Main Mine site-Middlings store, Proposed elevations
- 869/AM/040 Rev B- Main Mine site- External Lighting Layout
- 869/AR/014 Rev H - Rail Loading Facility - Post Decommissioning Restoration