

S.73 APPLICATION TO VARY CONDITIONS 3 AND 4

ENVIRONMENTAL STATEMENT ADDENDUM

CHAPTER 19: AIR QUALITY

**Ffos-y-Fran Land Reclamation Scheme, East of Merthyr Tydfil
CF48 4AE**

Merthyr (South Wales) Limited

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19.1.0 Introduction

S.73 Application Context

- 19.1.1 Planning permission for the operational surface coal mine at Ffos-y-Fran was originally granted under planning permission ref. A-PP 152-07-014 ('the original application'). The description of development was as follows:

"Application by Miller Argent (south Wales) Limited for the Ffos-y-Fran Land Reclamation Scheme, incorporating the extraction of coal by open cast methods, and being the final phase of the east Merthyr Reclamation Scheme."

- 19.1.2 The above permission was subsequently varied under a S.73 planning application (application ref. P/08/0316) which sought consent for:

"[The] Variation of condition 37 of planning permission A-PP 152-07-014 to permit the limited dispatch by road of up to 5% of the annual output of coal from the Ffos-y-Fran land reclamation scheme or a maximum of 50,000 tonnes of coal per annum (whichever is the lesser) via Cwmbargoed Disposal Point."

- 19.1.3 The application was refused by Merthyr Tydfil County Borough Council but the proposals were subsequently allowed at Appeal (Appeal ref. APP/U6925/A/10/2129921). The Appeal Decision was issued by an appointed Inspector on the 11th of March 2011 and contained a comprehensive list of updated conditions, thereby superseding the original planning permission for the site as detailed above (permission ref. A-PP 152-07-014).

- 19.1.4 The purpose of this S.73 application is to allow for an extension to the lifespan of the mine. As such, the application seeks to vary the following conditions as contained within Appeal ref. APP/U6925/A/10/2129921:

- **Condition 3** – "All coal extraction from the development hereby permitted shall cease no later than 06 September 2022"; and
- **Condition 4** – "Final restoration of the land shall be completed no later than 06 December 2024 and aftercare shall be undertaken for a period of not less than 5 years upon certification of completion of each phase of the progressive restoration scheme."

- 19.1.5 The S.73 application, as submitted, seeks to extend the lifespan of the minerals extraction by a further 9 months. As such, the timescales stipulated within the above conditions will be varied to match this extended life span for the mine. No alterations are proposed to the extraction area or working practices at the mine as previously consented.

Consideration of S.73 Application

- 19.1.6 In terms of air quality, the material amendment is for the extension of time and to assess the risks to human health and amenity from the proposed additional 9 months of operations.
- 19.1.7 The original ES identified the air quality issues from the scheme to include dust emissions from site plant and vehicles, and odour. On the basis that the operations that would continue during the proposed extension of time do not include the 'removal, storage and transport of waste from

previously landfilled areas', odour effects have been scoped out of the risk assessment for the S.73 Application.

19.1.8 The following information was submitted in support of the original application (ref. A-PP 152-07-014) for minerals consent at the site:

- Air Quality Chapter 19

19.1.9 Finally, discharge conditions in support of the ongoing mitigation and monitoring at the site, the following additional document was prepared.

- Air Quality, Noise and Vibration Strategy, 2007.

19.1.10 All of the above technical assessments and associated documents have been reviewed in the undertaking of this Environmental Statement Addendum and the findings contained herein.

Purpose and Structure of Chapter

19.1.11 This chapter of the Environmental Statement Addendum (ESA) considers the impact of the proposed material amendments on the planning policy and context of the area. The following is included within this Technical Chapter:

- Changes to legislation, policy and guidance relating to air quality and dust;
- Changes in baseline conditions;
- Changes in assessment of effects; and
- Changes in proposed mitigation.

19.2.0 Methodology

- 19.2.1 In the interim since the original ES, the changes in legislation, guidance and planning policy detailed in the following subsections have occurred.

Changes in Legislation, Guidance and Planning Policy

Legislation

- 19.2.2 The original ES referred to several legislative documents, including the following:
- Air Quality (Wales) Regulations 2000 & Air Quality (Amendment) (Wales) Regulations 2002
 - Environmental Protection Act 1990
 - Statutory Nuisance

- 19.2.3 The key legislative documents that apply under the current S73 application include:

- Air Quality Standards Regulations 2010 (AQSR)
- Air Quality Strategy (under the Environment Act 1995);
- Statutory Nuisance.

Air Quality Standards Regulations 2010

- 19.2.4 Of the above and since the original ES, the Air Quality (Wales) Regulations and subsequent amendment have been amended by the Air Quality Standards(Wales) Regulations (2010) which transpose both the EU Ambient Air Quality Directive (2008/50/EC) (Ref 1), and the Fourth Daughter Directive (2004/107/EC) (Ref 2) within UK legislation, in order to align and bring together in one statutory instrument the Government's obligations.
- 19.2.5 In the interim period the UK has formally left the EU, however despite this, EU rules and regulations referred above have subsequently been written into UK law and are still relevant.

Air Quality Strategy (The Environment Act 1995)

- 19.2.6 Under the Environment Act the UK government and devolved administrations continue to be required to review and assess air quality within their boundaries. Within the original ES these objectives were prescribed in the Air Quality (Wales) Regulations 2000 and subsequent amendments. Of the pollutants relevant to the assessment (NO₂ and PM₁₀) the objectives have not changed.
- 19.2.7 The latest AQS for England, Scotland, Wales and Northern Ireland was published in 2007 (Ref 3). The AQS now provides the over-arching strategic framework for air quality management in the UK and contains national air quality standards and objectives established by the UK Government and Devolved Administrations for the protection of public health and the environment.
- 19.2.8 The current air quality standards of relevance to human receptors in this assessment (are provided

in Table 19-1. The principal changes are the introduction of an annual standard for concentrations of particulate matter with diameters less than 2.5µm (PM_{2.5}).

Table 19-1: Relevant Ambient AQALs (2007 AQS)

Pollutant	AQAL (µg/m ³)	Averaging Period
Particles (PM ₁₀)	40	Annual mean
	50	24-hour mean (not to be exceeded on more than 35 occasions per annum)
Particles (PM _{2.5})	25	Annual mean
Nitrogen Dioxide (NO ₂)	40	Annual mean
	200	1-hour mean (not to be exceeded on more than 18 occasions per annum)

Statutory Nuisance

- 19.2.9 Part III of the Environmental Protection Act (EPA) 1990 (as amended) remains the main legislation on Statutory Nuisance and allows local authorities and individuals to take action to prevent a statutory nuisance.
- 19.2.10 There continues to be no statutory limit values for dust deposition above which 'nuisance' is deemed to exist: 'nuisance' is a subjective concept and its perception is highly dependent upon the existing conditions and the change which has occurred.
- 19.2.11 Dust deposition is not covered within the National Air Quality Strategy as it typically relates to nuisance effects as opposed to potential health effects. When the rate of accumulation of this coarser fraction of dust is sufficiently rapid to cause fouling or discolouration then it is generally considered to introduce a nuisance.

Guidance

- 19.2.12 The key guidance documents that were utilised in the original ES were the Mineral Planning Guidance Note 3 (MPGN3) and the Design Manual for Roads and Bridges (DMRB).
- 19.2.13 The key guidance documents that are relevant under the current S73 Application include:
- Department for Environment, Food and Rural Affairs (Defra), in partnership with the Welsh Government: Local Air Quality Management Technical Guidance (LAQM.TG(22)) (Ref 4);
 - Defra: COVID-19: Supplementary Guidance. Local Air Quality Management Reporting in 2021 (Ref 5);
 - The Mineral Industry Research Organisation (MIRO): Good Practice Guide (Ref 6);
 - The Institute of Air Quality Management (IAQM): Guidance on the Assessment of Mineral Dust Impacts for Planning (Ref 7);
 - Environmental Protection UK (EPUK) and IAQM: Land-Use Planning and Development Control: Planning for Air Quality (Ref 8) (hereafter referred to as the 'EPUK/IAQM guidance'); and

- Welsh Government: Minerals Planning Policy (Wales), Minerals Technical Advice Note (Wales), 2: Coal (Ref 9).

Local Air Quality Management Technical Guidance

- 19.2.14 The original ES utilised the Circular 63/97 (Welsh Office) 'The United Kingdom National Air Quality Strategy and Local Air Quality Management: Guidelines for Local Authorities'. Local Air Quality Management Technical Guidance documents have since been released and updated several times in the interim, with the most recent update LAQM.TG(22) published by Defra in 2022.
- 19.2.15 The main principals of the document with regard to the context of the assessment remain the same and are considered to remain valid.

Design Manual for Road and Bridges (DMRB)

- 19.2.16 The original ES utilised an adapted screening tool from the 2003 V1.01 version of the DMRB. The DMRB has had several updates since the original ES, namely the publication of Volume 11, Section 3, Part 1 HA207/07 published by the Highways Agency and the subsequent updated version 'LA 105 Air Quality' published by Highways England in 2019.

Land-Use Planning & Development Control: Planning for Air Quality

- 19.2.17 This guidance document has been released in the interim since the original ES. The most recent version of this guidance document was published in 2017. The document provides key guidance for air quality assessments and the assessment of the significance of effects.

Minerals Technical Advice Note (MTAN) Wales 2: Coal

- 19.2.18 The MTAN2 document was published in 2009 and contains advice on best practice on the approach to sustainable coal working. The Coal MTAN sets out how impacts should be assessed and what mitigation measures should be adopted.

Guidance on the Assessment of Mineral Dust Impacts for Planning

- 19.2.19 IAQM has published guidance on the Assessment of Mineral Dust Impacts for Planning to assist practitioners to undertake dust assessments for mineral sites. It provides advice on robust and good-practice approaches that can be used to assess the operational-phase dust impacts. For hard rock mineral sites, the IAQM guidance states that 'adverse dust impacts are uncommon beyond a distance of 400m from the nearest dust generating activity'.

The Mineral Industry Research Organisation: Good Practice Guide

- 19.2.20 A 'Good Practice Guide' issued on behalf of the Mineral Industry Research Organisation (MIRO) was released in 2011. The purpose of the Guide is to assist in the identification, control and management of dust arising from the extractive industries. The guidance provides a useful reference for available methods of mitigation and monitoring.

National and Local Policy

Planning Policy Wales & MTAN2

19.2.21 The original ES referenced to the National Assembly for Wales's guidance - Mineral Planning Policy Wales. The most recent version of the Planning Policy Wales document was published in 2021 which sets out the Welsh Government's land use planning policies for development across Wales.

19.2.22 The document states the following in relation to air quality and planning:

"6.1.32 When considering a scheme of enabling development, planning permission should be granted only where all of the following can be applied: [...]

- the enabling development does not give rise to significant risks, for example residential development in the floodplain or significantly impact on air quality or soundscape."*

19.2.23 Furthermore, in relation to addressing air quality in the planning system:

"6.7.4 The planning system should maximise its contribution to achieving the well-being goals, and in particular a healthier Wales, by aiming to reduce average population exposure to air and noise pollution alongside action to tackle high pollution hotspots. In doing so, it should consider the long-term effects of current and predicted levels of air and noise pollution on individuals, society and the environment and identify and pursue any opportunities to reduce, or at least, minimise population exposure to air and noise pollution, and improve soundscapes, where it is practical and feasible to do so.

6.7.5 In taking forward these broad objectives the key planning policy principle is to consider the effects which proposed developments may have on air or soundscape quality and the effects which existing air or soundscape quality may have on proposed developments. Air Quality and soundscape influence choice of location and distribution of development and it will be important to consider the relationship of proposed development to existing development and its surrounding area and its potential to exacerbate or create poor air quality or inappropriate soundscapes. The agent of change principle says that a business or person responsible for introducing a change is responsible for managing that change. In practice, for example, this means a developer would have to ensure that solutions to address air quality or noise from nearby pre-existing infrastructure, businesses or venues can be found and implemented as part of ensuring development is acceptable."

19.2.24 Specifically in relation to minerals developments and air quality, PPW states:

"The role of the planning authority in relation to mineral extraction is to balance the fundamental requirement to ensure the adequate supply of minerals with the protection of amenity and the environment. The key principles are to:

[...]

- reduce the impact of mineral extraction and related operations during the period of working by ensuring that impacts on relevant environmental qualities caused by mineral extraction and transportation, for example air quality and soundscape, are within acceptable limits; and*

[...]"

- 19.2.25 As stated above, the Mineral Policy Wales refers to mitigating and reducing to a minimum potential adverse impacts on air quality resulting from a development and is not considered to alter the methodology or findings of the original ES.

Local Planning Policy

- 19.2.26 There was no reference to local planning policy within the original ES. Local planning policy is currently determined under the adopted Merthyr Tydfil Replacement Local Development Plan 2016 – 2031. This document provides the local planning policy framework for the area and is the basis for land use planning decisions. Local policies relevant to this S.73 Application include:

Policy EnW4: Environmental Protection:

Development proposals will be required to demonstrate they will not result in an unacceptable impact on people, residential amenity, property and / or the natural environment from either:

Pollution of land, surface water, ground water and the air;

- *Land contamination;*
- *Hazardous substances;*
- *Land stability;*
- *Noise, vibration, dust, odour nuisance and light pollution; or*
- *Any other identified risk to public health and safety.*

Where impacts are identified the Council will require applicants to demonstrate that appropriate measures have been incorporated to reduce, or minimise the impact identified to the lowest possible acceptable level.

Planning conditions may be imposed or legal obligation entered into, to secure any necessary mitigation and monitoring processes [...].

- 19.2.27 It is considered that the implementation of Policy EnW4 does not alter the assessment methodology or findings of the original ES.

Assessment Methodology

- 19.2.28 The methodology for the assessment of dust and plant / vehicle emissions (NO₂ and PM₁₀) are defined within the original ES.
- 19.2.29 Plant emissions were assessed using an adapted version of the DMRB Screening methodology utilising background concentrations from DEFRA with the predicted concentrations assessed against the air quality objectives for NO₂ and PM₁₀.
- 19.2.30 Disamenity dust emissions from the onsite operations were assessed on a qualitative basis utilising local meteorological data, incorporating wind direction, wind speed and rainfall patterns (for dust). The updated IAQM guidance for minerals incorporates the same principles of a source-pathway-receptor concept as that adopted in the original ES.

- 19.2.31 There is no requirement for an amendment to the methodology contained within the original ES. Further guidance documents have been released since the original ES, however the S.73 Application does not include for any amendments to the existing baseline or current working methods; as such no amendments to the methodology are proposed.

Study Area

- 19.2.32 The study area of the original ES incorporated the entire area of the Site Boundary, on the basis that proposed operations would be undertaken across all areas during the lifetime of the proposed operations. With reference to the S.73 Application, the study area is limited to the working areas where potential emissions may originate and as such is significantly smaller in magnitude.

Sensitivity Criteria

- 19.2.33 The IAQM Guidance for the Assessment of Mineral Dust Impacts for Planning sets out sensitivity criterion defining receptors as 'low', 'medium' or 'high' sensitivity. A summary of the sensitivity of receptors to deposited dust and PM₁₀ is displayed in Table 19-2 and Table 19-3.

Table 19-2: Sensitivity Criteria – Deposited Dust

Sensitivity	Indicative Examples
High	- users can reasonably expect enjoyment of a high level of amenity; or - the appearance, aesthetics or value of their property would be diminished by soiling; and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. - indicative examples include dwellings, medium and long term car parks and car showrooms.
Medium	- users would expect a to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy the same level of amenity as in their home; or - the appearance, aesthetics or value of their property could be diminished by soiling; or the people or property wouldn't reasonably be expected a to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land; - indicative examples include parks, and places of work
Low	- the enjoyment of amenity would not reasonably be expected; - there is property that would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or - there is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. - indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks and roads

Table 19-3: Sensitivity Criteria – PM₁₀

Sensitivity	Indicative Examples
High	- locations where members of the public are exposed over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day) - indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of the assessment
Medium	- locations where people are occupationally exposed over a full working day - indicative examples include offices, warehouses and industrial units
Low	- locations where human exposure is transient; - indicative examples public footpaths, playing fields, parks and shopping streets.

Mitigation Hierarchy

- 19.2.34 Mitigation measures to reduce emissions from operations have been recommended within the original ES. Whilst not defined within the original ES, the preference would always be to reduce emissions at source where practicable, before the implementation of other measures (e.g. suppression / screening). The recommended mitigation measures have been proposed with reference to best practice guidance.

Effects Not Requiring Further Assessment

- 19.2.35 The S.73 Application is for an extension in time for the current mineral and restoration activities. The proposed amendment of extending the life of the Site by 9 months will not change the current level of operations from the existing baseline. Therefore no new or different impacts associated with air quality will arise as a result of the proposed extension in time.
- 19.2.36 It is recognised that the following aspects of operations at the Site remain either unchanged or have a reduction in magnitude from the consented baseline:
- Rate of mineral extraction;
 - Location and method of extraction and restoration activities;
 - Access points and transport routes;
 - Location of plant and equipment; and
 - Volume of off-site traffic generated by the Site

19.3.0 Changes in Baseline Conditions

Original ES Baseline

- 19.3.1 The baseline at the time of the original application is set out within Section 19.4 of the original ES.

Original ES Future Baseline

- 19.3.2 The future baseline at the time of the original application is set out within Section 19.4 of the original ES.

Current Baseline

Local Air Quality Management Review and Assessment

- 19.3.3 MTCBC, in fulfilment of statutory requirements, has conducted an on-going exercise to review and assess air quality within their administrative area. The latest publicly available LAQM report (not impacted by the COVID-19 pandemic) at the time of writing is the 2020 Annual Status Report (ASR) (Ref 10).
- 19.3.4 The main source of air pollution within Merthyr Tydfil is from road traffic. Within the 6 years preceding the 2020 LAQM Report, NO₂ concentrations peaked in 2013 and have been declining since. During 2019, all NO₂ monitoring sites within Merthyr Tydfil had achieved NO₂ concentrations within the annual mean air quality objective.
- 19.3.5 MTCBC have declared one AQMA since the original ES. The AQMA was declared in 2017 for exceedances of the annual NO₂ concentrations along Twynyrodyn Road and is located approximately 1km to the west of the Site (see **Error! Reference source not found.**). On the basis of the location of the AQMA in the built up area of Merthy Tydfil and not in proximity to any of the routes used by Site traffic, the declaration of the AQMA is not considered to change the outcome or conclusions of the original ES.

Defra Mapped Backgrounds

- 19.3.6 Defra continue to provide modelled background pollutant concentration data on a 1km x 1km spatial resolution across the UK, as per the original ES. Defra have released a number of updates since the original ES, with the latest background pollutant concentrations based upon the 2018 reference year and projected forward. Since the original ES, Defra have since started provided background concentrations of PM_{2.5}.
- 19.3.7 The 2022 and 2023 mapped background concentrations of NO₂, PM₁₀, and PM_{2.5} were obtained for the grid squares containing the Site and receptors identified within the original ES, as displayed in Table 19-4.

Table 19-4: Annual Mean Background Concentrations

Grid Square (X, Y)	Year	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)		
		NO ₂	PM ₁₀	PM _{2.5}
306500, 207500	2022	7.6	11.8	7.5
	2023	7.4	11.6	7.4
306500, 206500	2022	6.5	11.1	7.1
	2023	6.3	11.0	7.0
307500, 206500	2022	5.3	10.3	6.7
	2023	5.2	10.1	6.6
308500, 205500	2022	4.8	10.6	6.6
	2023	4.6	10.5	6.5
307500, 205500	2022	5.4	10.2	6.7
	2023	5.3	10.1	6.6
308500, 206500	2022	4.9	10.7	6.7
	2023	4.8	10.6	6.6
308500, 207500	2022	6.8	10.5	6.7
	2023	6.6	10.4	6.6
307500, 207500	2022	6.2	11.1	7.0
	2023	6.0	11.0	6.9

19.3.8 It is evident that modelled background concentrations of NO₂ and PM₁₀ have reduced from the modelled background concentrations utilised in the original ES.

Site Monitoring Data

19.3.9 There was no data on dust deposition rates in the original ES, with assumptions of rates to be relatively low given the rural area of the site locale.

19.3.10 Following the granting of Planning Permission 152-07-014, Condition 16 requires an air quality monitoring scheme. The monitoring scheme is detailed in the 'Air Quality, Noise and Vibration Strategy' document, required under Condition 14 of the Planning Permission.

19.3.11 In accordance with the air quality monitoring scheme, extensive monitoring for concentrations of PM₁₀, PM_{2.5} and dust deposition have been undertaken. PM₁₀ and PM_{2.5} have been and continue to be monitored using a Tapered Element Oscillating Microbalance (TEOM) monitor located at Twynrodyn School located approximately 550m east of the Site. A summary of the results for the previous 3 years for the PM₁₀ and PM_{2.5} is presented in **Error! Reference source not found..**

19.3.12 Directional dust monitoring has been and continues to be monitored at 9 locations around the Site using DS100 Directional Dust monitors and the Dustscan system of analysis. The Dust Impact Risk assigned to each individual wind segment is predominantly low at the monitoring locations. The directional dust monitoring data is used in collaboration with weather data and details of site operations to investigate any dust-related complaints.

- 19.3.13 Further details on the monitoring scheme including monitoring locations, trigger levels and action plans can be found within the 'Air Quality, Noise and Vibration Strategy' document in Appendix 19-1.

Table 19-5: Monitoring Data – PM₁₀ & PM_{2.5} (Twynroydyn School)

	2019 ^a	2020	2021 ^b
TEOM PM ₁₀	8.2	7.5	7.7
TEOM PM _{2.5}	4.3	3.7	4.2
Table Notes a) TEOM did not monitor between 31.03.19 and 01.06.19 TEOM ceased monitoring PM ₁₀ on 28.10.21 and PM _{2.5} on 30.09.21 due to technical issues			

Dust Complaints

- 19.3.14 MTCBC¹ have confirmed that they have received no complaints in relation to the working of the Site in the previous 3 years.
- 19.3.15 The Site operates a robust complaints system whereby any complaints received from members of the public are logged and investigated. There has been a low level of complaints made to the operator with regard to dust emissions during the previous 3 years of operations. As per the 'Air Quality, Noise and Vibration Strategy' each complaint has been fully documented and investigated, and where necessary considered in conjunction with the relevant weather and dust monitoring data for the period in question.

Meteorological Conditions

- 19.3.16 In the absence of local wind data, the original ES incorporated meteorological data from the Cardiff National Stadium for the period 1993 to 2002, noting the potential difference in wind patterns to the Application Site due to various factors. The wind data from the original ES identified a prevailing south-westerly wind with a lesser component from the north-east.
- 19.3.17 Cardiff Meteorological Station is located 38km to the south, with a strong coastal component and a lower elevation to that of the Application Site (67m ASL compared to ~370m ASL in the Study Area). A review of a more comparable meteorological station has been undertaken, identifying Sennybridge, a station approximately 39km to the north in an inland location with a more comparable elevation (307m ASL).
- 19.3.18 A five year windrose for data from Sennybridge station is presented in Figure 19-1.

¹ Email communication between SLR and Garin Eldred of MTCBC. 8th August 2022.

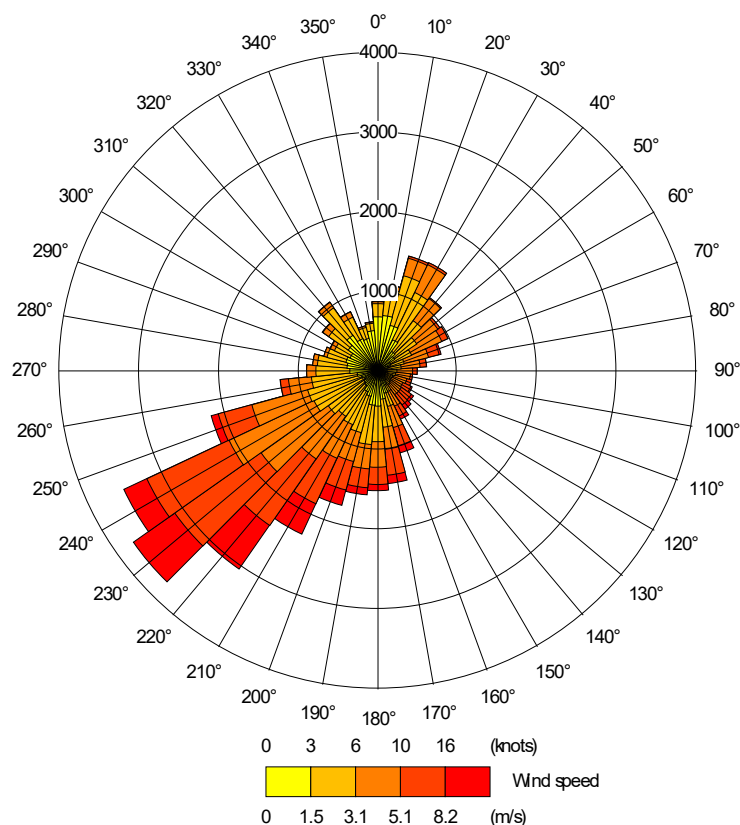


Figure 19-1: Sennybridge 5 year average Windrose (2015 to 2019)

- 19.3.19 Meteorological data from Sennybridge continues to show a strong south-westerly component with a lesser component from the northeast and would not be considered to change the conclusions of the original ES.
- 19.3.20 Condition 16 of Planning Permission 152-07-014 required the establishment of a weather station. Two weather stations were established, located at Cwmbargoed Disposal Point and Twynrodyn Primary School measuring rainfall, wind speed, wind direction and temperature. Data from the weather stations are incorporated into the complaints investigation process, as required.

Receptors

- 19.3.21 Since the original ES there have been no additional human receptors introduced in closer proximity to the Site boundary. Compared to the original ES, there is an increased distance between the operational working areas and the surrounding receptors given the reduced area of operations for the proposed time extension.
- 19.3.22 The original ES did not mention ecological receptors. The closest ecological receptor is the Site of Special Scientific Interest (SSSI) Cwm Glo a Glyndyrys, an area of marshy grassland declared in 2008 and located approximately 1.8km to the west of the Site. On the basis that this SSSI is not located within any of the prescribed screening distances from current guidance for road traffic emissions or dust emissions, there is no requirement to consider this receptor further in the context of this S.73

Application.

Changes in Baseline

- 19.3.23 There are not considered to be any changes to the baseline environment that would affect the assessment or conclusions from the original ES. The updated DEFRA backgrounds show an improvement in air quality of the site locale compared to that predicted in the original ES, which is confirmed from the site monitoring data for PM₁₀ and PM_{2.5}.

19.4.0 Assessment of Effects

Additional Effects

- 19.4.1 There are no changes to the proposed operations that would result in changes to the predicted emissions of dust or vehicular / plant emissions stated in the original ES. Further consideration of operational phase effects is not considered to be required. The only change to that assessed in the original ES is the reduction in the operational area where potential sources of emissions are located. This is considered to have a beneficial impact by increasing the distance between the potential source and the receptors.
- 19.4.2 It is considered that the reduced size of the proposed operational area combined with the improved baseline air quality presented in Section 19.3, the magnitude of impact would be less than that concluded in the original ES.

Additional Cumulative Effects

- 19.4.3 A review of committed developments (additional to those considered within the original ES) indicates that dust and vehicular emissions will be unlikely to lead to a perceptible reduction in air quality, due to distance and existing ambient and background concentrations. Further consideration of cumulative effects is not required.

Consideration of Original ES

- 19.4.4 There are no identified changes in baseline conditions or the assessment of effects that will result in new or significant effects.

19.5.0 Requirement for Additional Mitigation or Monitoring

- 19.5.1 Appropriate mitigation and monitoring has been identified in the original ES, supplemented by measures within the Air Quality, Noise and Vibration Strategy prepared in accordance with Condition 14 of permission 152-07-014. Additional Planning Conditions related to dust mitigation have been stipulated within the more recent 2011 Planning Permission APP-U6925/A/10/2129921.

Original ES Mitigation

- 19.5.2 The original ES identifies a number of suitable mitigation measures to ensure that potential air quality effects are managed and controlled to acceptable levels where practicable. Mitigation is implemented on Site in accordance with the measures identified in the Air Quality, Noise and Vibration Strategy (Appendix 19-1). The Strategy includes details of the dust control measures, site management, complaints procedure and monitoring scheme in accordance with the conditions of the Planning Conditions stipulated within Planning Permission 152-07-014.
- 19.5.3 Full details of the mitigation and management on site is detailed within the Air Quality, Noise and Vibration Strategy in Appendix 19-1.

Subsequent Mitigation or Monitoring

- 19.5.4 Following the granting of permission APP-U6925/A/10/2129921, conditions relating to dust control and mitigation were subsequently updated from the original permission 152-07-014. It is considered that all aspects of the dust control measures were already complied with given the implementation of the Air Quality, Noise and Vibration Strategy.

Alternate or Additional Mitigation and Monitoring

- 19.5.5 The mitigation measures implemented in accordance with the Air Quality, Noise and Vibration Strategy are considered to remain appropriate and are considered to remain in accordance with the best practise measures within the Minerals Technical Advice Note 2: Coal (MTAN2). Given the low level of complaints and the monitoring data to date, no alternate or additional mitigation measures beyond those identified are required.

19.6.0 Residual Effects

- 19.6.1 Following consideration of mitigation, residual effects relating to air quality during the operations are identified within the original ES.

Consideration of Original ES

- 19.6.2 Given that the proposed extension in time will not alter the findings of the original ES, residual impacts for the proposed operations are 'likely to be insignificant' (as per the paragraph 19.6.4 of the original ES).

19.7.0 Other Environmental Issues

19.7.1 This Section seeks to detail any considerations and environmental effects which have been identified with regard to the range of topics which have been introduced into EIA requirements through the EIA Regulations 2017. Where there are no such considerations or environmental effects, this is also specified below for clarity.

19.7.2 Please see Chapter 22 for a summary of the 'Other Environmental Issues' identified across all of the technical assessments undertaken and the Chapters prepared as part of the ES.

Other Environmental Issues of Relevance

Infrastructure

19.7.3 The assessment of infrastructure is not considered of relevance to the air quality Chapter.

Waste

19.7.4 The issue of waste was considered within the original ES with regards to the removal, storage and transport of waste from previously landfilled areas. On account that waste operations are no longer undertaken at the Site, potential impacts from an air quality perspective (i.e. odour) do not require assessment.

Population and Human Health

19.7.5 The scope of any air quality assessment inherently considers the population and human health, given the known impacts of air pollutants on human health.

19.7.6 Potential impacts on human health have been assessed for the proposed extension in time, and the significance of effects were concluded to remain as per the original ES, i.e. 'not significant'.

Climate and Carbon Balance

19.7.7 The assessment of climate change and carbon balance is not considered of relevance to the air quality Chapter.

Risks of Major Accidents and/or Disasters

19.7.8 The risks of major accidents and/or disasters is not considered of relevance to the air quality Chapter.

Summary

19.7.9 With regards to the EIA regulations 2017, in terms of air quality there are not considered to be any likely significant effects with regards to Other Environmental Issues.

19.8.0 Summary of Effects

- 19.8.1 Chapter 19 of the original ES has been reviewed in the context of the proposed material amendment, to determine whether the proposals, and subsequent changes in policy, guidance and baseline conditions have the potential to lead to changes in the findings as described within the original ES.
- 19.8.2 Following this review, no changes have been identified that would alter the assessment of effects as described within the original ES.

19.9.0 Conclusions

- 19.9.1 This review has identified that the proposed S.73 Application, and changes in policy, guidance and baseline conditions that have occurred since the 2003 Application, will not alter the findings presented within the original ES. On this basis, it is not necessary to undertake further technical assessments in support of the proposed development.
- 19.9.2 It is therefore concluded that the findings detailed in Chapter 19: Air Quality of the original ES remain valid and the proposed S.73 application to vary Conditions 3 and 4 will not result in any likely significant effects beyond those previously identified.

REFERENCES

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- 3) Defra, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, July 2007.
- 4) Local Air Quality Management Technical Guidance 16, Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland. April 2021.
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- 6) MIRO, Good practice guide: control and measurement of nuisance dust and PM₁₀ from the extractive industries, Issue 1 February 2011.
- 7) IAQM, Guidance on the Assessment of Mineral Dust Impacts for Planning, v1.1 2016.
- 8) EPUK and the IAQM, Land-Use Planning and Development Control: Planning for Air Quality, v1.1 2017.
- 9) Welsh Government, Minerals Planning Policy (Wales), Minerals Technical Advice Note (Wales), 2: Coal, January 2009
- 10) Merthyr Tydfil County Borough Council, 2020 Air Quality Progress Report, Sep 2020

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