

S.73 APPLICATION TO VARY CONDITIONS 3 AND 4

ENVIRONMENTAL STATEMENT ADDENDUM

CHAPTER 18: WASTE

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

Merthyr (South Wales) Limited

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Appendix 18-1: Locations of Former Landfills - Drawing FLRS/ES15

18.1.0 Introduction

S.73 Application Context

- 18.1.1 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."

- 18.1.2 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."

- 18.1.3 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).

- 18.1.4 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."*

- 18.1.5 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

- 18.1.6 As part of a Ffos-y-Fran scheme a commitment was made to remove the long-term risk to human health and controlled waters associated with three former landfills located within the boundary of the reclamation scheme.
- 18.1.7 The following information was submitted in support of the original application (ref. A-PP 152-07-014) for minerals consent at the site:

- Chapter 18 Waste Management of Former Landfills of the Ffos-y-Fran Reclamation Scheme - Environmental Statement.

18.1.8 Finally, discharge conditions at the site, the following additional documents were prepared and remedial works undertaken to excavate the landfills, process the waste and dispose of hazardous and non-hazardous waste off site to an appropriate permitted facility.

- Remediation Strategy Ffos-y-Fran - Revision C dated August 2007 by Vertase FLI Limited; and
- Ffos-y-Fran Waste Tip Reclamation – Completion Report – Revision A December 2008 Vertase FLI Limited.

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

Purpose and Structure of Chapter

18.1.10 This chapter of the Environmental Statement Addendum (ESA) is to demonstrate that the condition to remove, process and dispose of the waste within the former landfill has been discharged and therefore the proposed S.73 has no material impact on this element of the original ES.

18.1.11 What is included within this Technical Chapter, bullet point list:

- An overview of the baseline conditions on site at the time when the original ES was submitted; and
- An overview of the remediation works undertaken to discharge the condition to remove the waste from the three landfills.

18.2.0 Methodology

Changes in Legislation, Guidance and Planning Policy

- 18.2.1 There are no changes in legislation, guidance or planning policy applicable to this ESA given that the waste elements previously identified have been removed from site and are no longer of relevance to the project.

Assessment Methodology

- 18.2.2 There are no changes to the assessment methodology as outlined within the original ES. This includes consideration of the study area, assessment criteria and mitigation hierarchy.

Effects Not Requiring Further Assessment

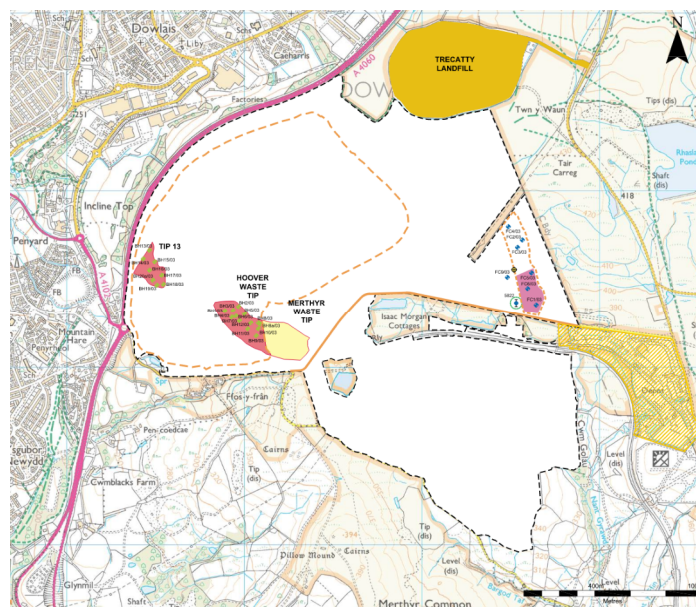
- 18.2.3 Given that all remediation works have taken place, Waste is no longer an environmental topic requiring further assessment beyond that contained within the original ES.

18.3.0 Changes in Baseline Conditions

Original ES Baseline

- 18.3.1 An assessment of the existing landfill sites within the proposed Ffos-y-Fran Land Reclamation Scheme, was originally produced by Peter Brett Associates (PBA) for the original ES (Chapter 18).
- 18.3.2 The Ffos-y-Fran reclamation area includes three former landfill sites known as Tip 13, Hoover and Merthyr Landfills, with a total approximate volume of 440,000 m³.
- 18.3.3 The three landfills were located on the western side of the site, immediately east of the A4060, as shown on Drawing FLRS/ES15 within Appendix 18-1. An extract of this drawing is shown within Figure 18-1 below.

Figure 18-1: Locations of Former Landfills



- 18.3.4 The Hoover and Merthyr landfills were formed within a complex of colliery spoil tips, immediately adjacent to one another, effectively forming a single landfill. The topography of the Hoover and Merthyr landfills were characterised by flat at the top, at an elevation of 360m aOD, with a steep slope falling away in a south-westerly direction.
- 18.3.5 Tip 13 was located to the northwest of the Hoover waste tip, close to the A4060. The topography of the Tip13 was characterised by flat at the top, at an elevation of 312m aOD.
- 18.3.6 As part of the PBA assessment a ground investigation was undertaken, comprising 22 borehole and 6 trial pits. Waste was encountered in all boreholes, with thicknesses ranging from 7.3 m to 9.7 m at the Hoover Landfill, 4.0 m to 6.3 m at the Merthyr Landfill and 3.7 m to 7.9 m at Tip 13 Landfill. Waste material typically consisted of a predominantly of ash and colliery shale, mixed with wood, metal, plastic, glass, brick fragment, concrete and a small quantity of clay. Samples of waste arisings were taken for laboratory testing to assess the potential for the screening and re-use of materials on site.
- 18.3.7 Standpipes were installed within 11 of the boreholes to allow monitoring of ground water and

landfill gas. Subsequent to the installation of the standpipes, methane concentrations ranging from 1.90% to 27.50% were recorded in a number of boreholes BH6/03, BH8/03 and BH10/03 on a consistent basis.

Original ES Future Baseline

18.3.8 The key objectives identified by PBA in the original ES for the remedial works were:

- *“Where waste is created it must increasingly be put to good use – through recycling, composting or using it as a fuel.”*
- *“The proximity principle requires waste to be disposed of as close to the place of production as possible. This avoids passing the environmental costs of waste management to communities that are not responsible for its generation and reduces the environmental costs of transporting waste.”*
- *“Waste Planning Authorities should look to the need to move substantially away from landfill towards recycling, composting and energy from waste.”*

18.3.9 The remediation works described in the original ES were based on the above objectives and proposed that the waste within the Tip 13, Hoover and part of the Merthyr Landfill was to be excavated for processing and disposal. The waste remaining in place in Merthyr Landfill (approximately 240,000 m³) at the edge of the excavation area of the Ffos-y-Fran open pit, was to be capped and ultimately restored as part of the overall restoration and rehabilitation scheme.

18.3.10 The remedial works, proposed by PBA, sought to classify excavated materials based on their nature and potential contamination risk, which then determined how the materials would be treated. It was envisaged that the excavation would result in arising which would come under 3 different classifications, namely:

1. *“Uncontaminated, granular stone and ash soils capable of being utilised for on-site construction. This material will be stockpiled separately in clearly defined and labelled stockpiles. Testing to ensure the uncontaminated nature of this material will be carried out to agreed examination and testing protocols.”*
2. *“Material generally conforming to the above description but containing wood, metal, plastics, textiles and paper which can be separated out from the mass. The resulting inert materials will then be used as in 1 above.”*
3. *“Obviously or possibly contaminated material (based on visual or olfactory evidence) will be disposed directly to landfill either off-site at Trecatty landfill via the Cwmbrgoed Disposal Point in accordance with the Duty of Care waste management legislation or into a specially constructed on-site containment facility.”*

Current Baseline

18.3.11 A remediation strategy was developed by Vertase F.L.I. (F.L.I) for the remediation of the landfills, based on the assessment completed by PBA. Remediation works to remove the three landfills were undertaken by F.L.I., as principal contractor, between September 2007 and December 2008.

18.3.12 Initially the lateral extent of each landfill was confirmed by a series of trial pits, excavated around

the perimeter of each, as determined by PBA's investigations. Further trial pits were also excavated upon completion of waste excavation across the base of the excavation to confirm that all waste had been removed.

- 18.3.13 Selective excavation of the landfills was undertaken in line with the Remediation Strategy, which identified hotspots of contamination for disposal, and allowed for uncontaminated and naturally occurring to be recovered and processed for re-use directly on site.
- 18.3.14 The physical processing of the excavated soils contaminated with waste was achieved using 4 screens to grade, plus handpicking to remove oversized materials (large concrete and stone). This produced three products, namely:
- oversized materials – used within the general engineering works;
 - recovered waste – exported to an appropriate permitted landfill facility; and
 - recovered soils – stockpiled and tested for contamination.
- 18.3.15 Testing of the recovered soils indicated small volumes of soils contaminated with either mercury or ammonia/ammonium contamination. Soils contaminated with mercury were placed in windrows and stabilised by mixing with cementitious materials (primarily OPC / sand mixture). Soils contaminated with ammonia were subjected to 'flushing' to leach out the contaminants, by regular mixing and blending the soils with straw with an "Allu-bucket".
- 18.3.16 Recovered waste was classified as either hazardous or non-hazardous. Hazardous waste, namely cement bound asbestos sheeting, was disposed of to Hills Group landfill facility in Swindon, Wiltshire, which was permitted to receive stable non-reactive hazardous waste. Non-hazardous waste was taken to Biffa's Tracatti Landfill which lies on the northern boundary of the site, for disposal. Waste Tyres were taken to Tredegar Skip Hire Limited for disposal and scrap metal was taken to ABBA Scrap Metals Limited for recycling.
- 18.3.17 During the excavation process both perched water from the excavations and runoff water, that had come into contaminated soils from the process areas, were recovered and pumped or tankered to a treatment lagoon.
- 18.3.18 Residual waste left in place in the Merthyr Landfill was capped with a 1m thick layer of low permeability clay and ditches constructed at the toe and crest, to divert water away from the slope to ensure stability and minimise erosion.
- 18.3.19 All suitable restoration soil material, whether identified during the selective excavation works, or produced via testing of recovered or treated soils, was re-used in the wider mine restoration by the client.

Changes in Baseline

- 18.3.20 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, there has been a significant change in baseline associated with waste since the original ES was prepared.
- 18.3.21 On this basis, Waste is no longer an environmental topic of concern for the site and the proposed S.73 does not impact this element of the original ES.

18.4.0 Assessment of Effects

- 18.4.1 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, the proposed S.73 will not have any affect on this element of the original ES.

Additional Effects

- 18.4.2 Not Applicable

Additional Cumulative Effects

- 18.4.3 Not Applicable

Consideration of Original ES

- 18.4.4 Not Applicable

18.5.0 Requirement for Additional Mitigation or Monitoring

- 18.5.1 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, there is no requirement for any additional mitigation or monitoring.

Original ES Mitigation

- 18.5.2 Not Applicable

Subsequent Mitigation or Monitoring

- 18.5.3 Not Applicable

Alternate or Additional Mitigation and Monitoring

- 18.5.4 Not Applicable

18.6.0 Residual Effects

- 18.6.1 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, there are no residual effects .

Consideration of Original ES

- 18.6.2 Not Applicable

18.7.0 Other Environmental Issues

18.7.1 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.

18.7.2 Please see Chapter X 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

18.7.3 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, there is no other environmental issues.

Infrastructure

18.7.4 Not Applicable

Waste

18.7.5 Not Applicable

Population and Human Health

18.7.6 Not Applicable

Climate and Carbon Balance

18.7.7 Not Applicable

Risks of Major Accidents and/or Disasters

18.7.8 Not Applicable

Summary

18.7.9 Not Applicable

18.8.0 Summary of Effects

- 18.8.1 Given that the remediation works were carried out by Vertase F.L.I., with no waste material remaining on site, there are no effect with respect to waste from the proposed S.73.

18.9.0 Conclusions

- 18.9.1 The issues associated with the presence of former landfills within the Ffos-y-Fran reclamation scheme have been addressed with the implementation of the remediation works in 2007-2008. Hence, the S.73 application to extend the life of the site does not have an impact in respect of the waste management of the former landfills.

REFERENCES

Chapter 18 Waste Management of Former Landfills of the Ffos-y-Fran Reclamation Scheme - Environmental Statement.

Remediation Strategy Ffos-y-Fran - Revision C dated August 2007 by Vertase FLI Limited; and

Ffos-y-Fran Waste Tip Reclamation – Completion Report – Revision A December 2008 Vertase FLI Limited.

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