APPLICATION FOR AN ENVIRONMENTAL PERMIT VARIATION UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED)

ENVIRONMENTAL RISK ASSESSMENT

NEVILL'S DOCK, LLANELLI, CARMARTHENSHIRE, SA15 2HD

ECL Ref: ECL.008.01.04/ERA
Version: Issue 1
November 2019

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ACRONYMS / TERMS USED IN THIS REPORT

AMG	AMG Resources Limited
AMP	Accident Management Plan
EA	Environment Agency
ECL	Environmental Compliance Limited
EMP	Emissions Management Plan
EMS	Environmental Management System
EP	Environmental Permit
ERA	Environmental Risk Assessment
ETPR	Environmental Permitting Technical Requirements Document
FPP	Fire Prevention Plan
FRS	Fire Rescue Service
Installation	AMG Resources Limited Llanelli Site operating under EPR/BM2381IQ
LNR	Local Nature Reserve
MAGIC	Multi-agency Geographic information for the Countryside
NGR	National Grid Reference
NNR	National Nature Reserve
NRW	Natural Resources Wales
NVMP	Noise and Vibration Management Plan
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
SAC	Special Area of conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

1. INTRODUCTION

1.1. Overview

1.1.1. As part of AMG Resources Limited ("AMG") application to vary the conditions of its existing Environmental Permit ("EP") EPR/BM2381IQ, Environmental Compliance Limited ("ECL") has been commissioned by AMG to produce an Environmental Risk Assessment ("ERA") which will form part of AMG's Environmental Management System ("EMS").

1.1.2. AMG wish to vary their existing permit to undertake a Specified Waste Operation –'Non Hazardous Physical Treatment', in addition to the existing 2.2. Scheduled Activity at their Llanelli Site hereafter referred to as 'the Installation'.

1.1.3. This ERA only relates to the activities associated with the proposed Specified Waste Operation.

1.1.4. As part of the variation, AMG propose to accept 5 metal waste types which are to be baled and sent off-site for recycling. These waste types are as follows:

- 17 04 05 – iron and steel;
- 19 01 02 – ferrous materials removed from bottom ash;
- 19 12 02 – ferrous metal;
- 19 12 03 – non-ferrous metals; and
- 20 01 40 – metals.

1.1.5. An Environmental Risk Assessment has been undertaken in accordance with the relevant requirements of the current version of the Environment Agency's online Risk Assessment for your Environmental Permit[1] (as required by Natural Resources Wales ("NRW")), in order to:

- identify potential risks that site operations may present to the environment;
- screen out any insignificant risks;
- assess potentially significant risks in detail; and
- decide on the appropriate control measures.

1.1.6. Accordingly, the assessment has addressed the potential risks relating to the operation of the proposed facility, namely:

- amenity and accident risks.

1.1.7. The proposed activities do not involve any point source emissions to air, discharges to land or foul water, therefore, no assessment has been undertaken.

1.1.8. The findings of the various assessments are presented in Section 4 of this ERA.

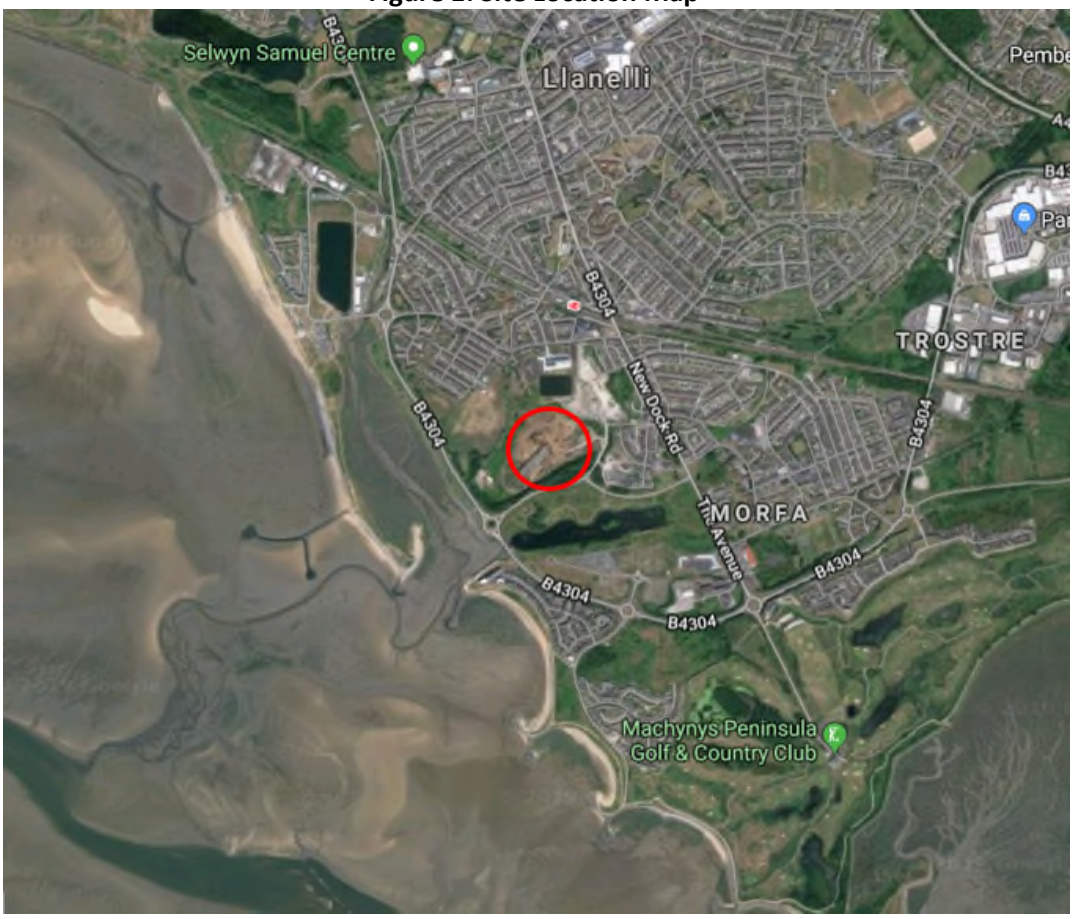
[1] Risk Assessment for your Environmental Permit [Online] Available at https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit , accessed October 2019

2. IDENTIFICATION OF RECEPTORS

2.1. Site Setting

2.1.1. The Site Location Plan (Drawing Reference ECL.008.01.04-001) details the Environmental Permit boundary, whilst the Site Layout Plan (ECL.008.01.04-002) illustrates the distinct area in which the proposed Specified Waste Operation will be undertaken. Both drawings are contained in Appendix I of this document. Figure 1 shows the location of the Installation (circled in red) in relation to the surrounding area. The identified sensitive ecological and human receptors are described in Section 2.2. and 2.3. and are shown on the Sensitive Receptor Plan (ECL.008.01.04-3) which is contained in Appendix I.

Figure 1: Site Location Map

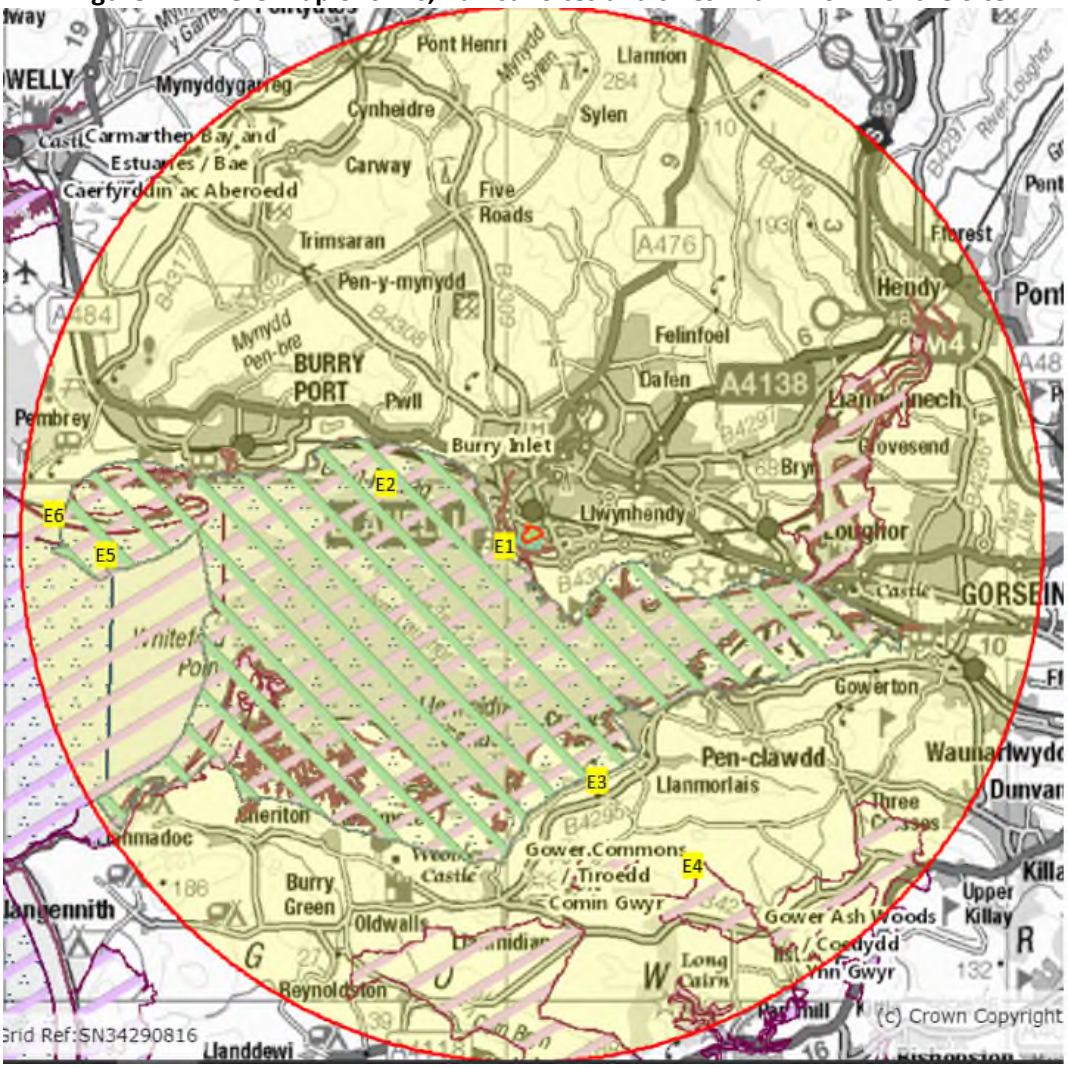


2.1.2. The Installation is located at Nevill's Dock, Llanelli, SA15 2HD, and is centred on National Grid Reference ("NGR") 250504 198981. To the north and east of the site lie the principally residential areas of Llanelli whilst to the south is the Machynys Peninsula. To the west are the mud and sand flats of the River Lliedi and the Burry Inlet.

2.2. Potentially Sensitive Ecological Receptors

2.2.1. A review of the area using the Multi-Agency Geographic Information for the Countryside ("MAGIC") website[2] identified that the Installation is located within 10km of Burry Inlet, a designated Ramsar Site and Special Protection Area ("SPA"). The Installation is also located within 10km of five Special Areas of Conservation ("SAC") (See Figure 2 – Ramsar green hatching, SACs purple hatching and SPAs blue dots).

Figure 2: MAGIC Map of SPAs, Ramsar Sites and SACs within 10km of the Site



2.2.2. The NGR of the identified ecological receptors are listed in Table 1, together with their distance and heading from the Installation boundary.

[2] MAGIC online mapping tool, available at: http://magic.gov.uk/MagicMap.aspx, accessed October 2019

Table 1: Specific Sensitive Habitat Receptors Considered for the Assessment

Ref	Location	Type	Distance (m) from site boundary	Easting	Northing
E1	Burry Inlet	SPA, Ramsar	478 SW	250023	198528
E2	Bristol Channel Approaches	SAC	6120 WNW	244443	200074
E3	Gower Commons	SAC	6498 SSE	253888	192620
E4	Gower Ash Woods	SAC	7999 SSE	253126	191120
E5	Carmarthen Bay and Estuaries	SAC	8874 WSW	243879	199062
E6	Carmarthen Bay Dunes	SAC	9054 W	242669	199783

2.2.3. The Installation is not located within 2km of any National Nature Reserves ("NNR'S") but is located within 2km of the Burry Inlet Local Nature Reserve ("LNR"), in addition to the Site of Special Scientific Interest ("SSSI") of Burry Inlet, Loughor Estuary and Machynys Ponds (See Figure 3 – turquoise hatching).

Figure 3: MAGIC Map of SSSIs, NNRs and LNRs within 2km of the Site

2.2.4. The NGR of the potential ecological receptors within 2km are listed in Table 2, together with their distance and heading from the Installation.

Table 2: Specific Sensitive Habitat Receptors Considered for the Assessment

Ref	Location	Type	Distance (m) From site boundary	Easting	Northing
E1	Burry Inlet	SSSI, LNR	478 SW	250023	198528
E7	Machynys Ponds	SSSI	882 SSE	251250	198050

2.2.5. In addition to the SACs, SPAs, RAMSARs, NNRs, LNRs and SSSIs, other potentially sensitive land uses within 1km of the Installation were also considered. A review of the area using the MAGIC[1] online tool and Lle-Geo Portal for Wales[3] indicates that none of the following sensitive land uses are located within a 1km radius of the Installation:

- Areas of Outstanding Natural Beauty;
- Groundwater Source Protection Zones;
- Marine Conservations Zones;
- Marine Nature Reserves;
- National Nature Reserves;
- National Parks; and
- Nitrate Vulnerability Zones.

2.3. Potentially Sensitive Human Receptors

2.3.1. Within 2.5km of the Installation, potentially sensitive human receptors surrounding the Installation have been considered. These comprise residential properties, schools, surface water features and places of worship (See Table 3).

Table 3: Potentially Sensitive Human Receptors

Ref	Receptors	Direction
R1	Residential, schools including Ysgol Pen Rhos, places of worship, Sandy Water Park, Town Hall, Library	North
R2	Residential (Morfa), schools, places of worship, Trostre Retail Park	East
R3	New Dafen River, residential (Machynys), Machynys Peninsula Golf and Country Club	South
R4	Playing fields, the Millenium Coastal Park	West

[3] Lle-Geo online portal, available at: http://lle.gov.wales/home?lang=en, accessed October 2019

3. IDENTIFICATION OF THE RISKS

3.1. Amenity Risks

3.1.1. Taking into account the nature of the activities that will be undertaken as part of the proposed variation, the main amenity risks identified are as follows:

- emissions to air , such as fugitive emissions to air (dust) from the processing of metallic waste;
- emissions to water, such as clean surface water runoff; and
- general amenity risks (noise emissions from the operation of plant and machinery, litter, mud, pests associated with the proposed waste to be accepted).

3.2. Accident Risk

3.2.1. The main accident risks which have been identified are:

- fire;
- spillage of potentially polluting substances;
- loss of mains electrical power; and
- vandalism.

4. ASSESSMENT OF RISKS

4.1. Methodology

4.1.1. The risk assessments have been undertaken using the following approach for amenity and accident risks:

- identification of hazards associated with the risk that have the potential to cause harm;
- identification of potential receptors i.e. what is at risk (for the purposes of this assessment, typical potential receptors have been identified)?
- pathway i.e. how can the hazard get to the receptor?
- risk management measures employed to reduce the risk to an acceptable level;
- probability of exposure i.e. how likely is this contact?
- consequence i.e. what is the harm that can be cause? and
- assessment of overall risk.

4.1.2. The assessments for the amenity and accident risks identified above are presented in Table 4.

Table 4: Risk Assessment

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Air						
There will be no point source emissions to air associated with the Specified Waste Operation.	n/a	n/a	n/a	n/a	n/a	n/a
Fugitive dust emissions from delivery and storage of waste materials, during main operations and processing (separating and baling material) and loading of product.	Human population in surrounding area.	Release to air – windblown dispersion in atmosphere	Materials will be delivered to site in enclosed vehicles and will be offloaded within the dedicated covered storage bays which are located a significant distance from the site boundary to prevent any fugitive emissions to air reaching sensitive receptors. Finished product will also be stored within separate dedicated areas located a significant distance from the site boundary. An Emissions Management Plan ("EMP") (ECL.008.01.04/EMP) has been prepared which outlines all mitigation measures implemented on site to control any fugitive dust emissions. As detailed within the EMP, a daily visual inspection monitoring fugitive emissions will be undertaken with water suppression techniques employed during dry and windy weather conditions.	Medium. Risk management measures should prevent any release from reaching the identified receptors.	Dust nuisance.	Not significant.
Emissions To Land						
There will be no emissions to land associated with the Specified Waste Operation.	n/a	n/a	n/a	n/a	n/a	n/a

Table 5: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Water						
There will be no point source emissions to surface water, foul water or groundwater associated with the proposed Specified Waste Operation.	n/a	n/a	n/a	n/a	n/a	n/a
Fugitive emissions to surface water, foul water or groundwater	Local watercourse network.	Via site drainage system/directly via groundwater	There will be no direct process related releases i.e. process contributions to water from the activities proposed as part of this permit variation. The proposed Specified Waste Operation will be undertaken in the designated area shown on the Site Layout Plan (ECL.008.01.04-002), contained in Appendix I. The Specified Waste Operation will consist of impermeable concrete hardstanding and bunded by a 0.3m concrete block wall and vehicle ramps. This bunded area will be isolated from all drainage networks. Should any rainwater accumulate in this bunded area, AMG will arrange for the rainwater to be tankered and disposed of offsite accordingly. Additionally, as part of this variation application, AMG are proposing to block W1 and permanently sever the connection as it is no longer required as a result of the demolition works. Therefore, AMG are requesting to remove W1 from their Environmental Permit. This will ensure that there is no potential for a contaminant pathway to soakaway or groundwater.	Low/Medium. Risk management measures should prevent any release from reaching the identified receptors	Contamination of controlled water(s).	Not significant if procedures adhered to.

Table 6: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Emissions to Water (Cont.)						
Fugitive emissions to surface water, foul water or groundwater (Cont.)	Local watercourse network.	Via site drainage system/directly via groundwater	More detail regarding the removal of W1 is provided in Section 5.4. of the Environmental Permitting Technical Requirements Document ("EPTR") which is to be submitted as part of this variation application. Nevertheless, in the event of any spillage within the discrete bunded area, site personnel are trained in the AMP (ECL.008.01.04/AMP) (contained in Appendix II) which details the required response in the event of loss of containment. This is covered in more detail in the Accidents Section of Table 4. Spill kits are well stocked and placed in strategic locations on site as shown on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004).	Low/Medium. Risk management measures should prevent any release from reaching the identified receptors	Contamination of controlled water(s).	Not significant if procedures adhered to.
General Amenity Risks						
Noise resulting from the operation of site plant and equipment.	Human population in surrounding area.	Site is close enough to receptors for noise to be potentially audible.	All site plant and equipment will be covered by the Planned Preventative Maintenance Regime ("PPMR") to ensure that it is kept in good operational condition. A copy of the PPMR is provided in Appendix III. Daily operations cease at 5pm and the site does not operate on weekends or bank holidays. The vehicle route has been designed to limit the need to reverse on site. Vehicles may sound reversing beepers for 5-20 seconds. This is intermittent and vital for the health and safety of all workers.	Low/Medium. Risk management measures should prevent any significant noise emissions from reaching the identified receptors.	Noise nuisance.	Not significant.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
General Amenity Risks (Cont.)						
Noise resulting from the operation of site plant and equipment (Cont.)	Human population in surrounding area.	Site is close enough to receptors for noise to be potentially audible.	The baler manufacturer has indicated operational noise levels of 78dB. Sensitive receptors such as local residents are likely to experience noise nuisance over 50dB when outdoors[4]. Consequently, the machinery will be located a significant distance from the Installation boundary, therefore, sufficient attenuation should prevent any nuisance or complaints being received as a result of the proposed operations. A Noise and Vibration Management Plan ("NVMP") (ECL.008.01.04/NVMP) has been prepared which outlines the mitigation measures implemented on site	Low/Medium. Risk management measures should prevent any significant noise emissions from reaching the identified receptors.	Noise nuisance.	Not significant.
Litter releases, pests moving off site and mud on roads.	Human population in surrounding area.	Releases to air/windblown or air and land (flies/vermin).	Daily inspections of site will be undertaken to ensure strict housekeeping standards and any observed litter or mud will be removed. Records of these inspections and any remedial actions are recorded on the EMS Site Checks which is provided in Appendix IV. A rapid processing turnaround time of 1 week during summer months will aid the prevention of pest habitat formation. A Pest Management Plan ("PMP") (Document Reference ECL.008.01.04/PMP) has been prepared which outlines the mitigation measures implemented on site. A specialist pest management company has been appointed to provide expertise and advice on a monthly basis.	Medium. The risk management measures should prevent any litter, mud or pests reaching the identified receptors.	Possible adverse health effects and nuisance.	Not significant.

[4] Environment Agency Horizontal Guidance for Noise Part 2 – Noise Assessment and Control, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/298126/LIT_8291_337647.pdf, published 2004, accessed November 2019.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Accidents - Fire						
Fire at the site.	Human population in the surrounding area.	Releases of gases/vapour to air.	The site will operate in accordance with the Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP) contained within this permit variation submission. The FPP provides detailed risk management measures which are to be implemented to ensure the risk of fire at the Installation is minimised. A summary is provided below. During operation, staff are present in the main areas of site. Waste pre-acceptance and acceptance procedures ensure that contamination in the incoming material is kept to a minimum and ensures that no foreign materials are present. Any that are identified are removed and quarantined. Fire detection alarm systems are installed, maintained and tested by PES Fire and Security Systems Ltd to BS5306 Standard and also in accordance with Fire and Rescue Service ("FRS") recommendations. Designated smoking areas will be located a significant distance from operational areas and identified fire risks. Emergency procedures are in place and reviewed as part of Company's EMS and FPP. Training will be provided to all site personnel in relation to preventing fires and identifying fire risks on site with provision of manual extinguishers and firefighting training provided to nominated personnel.	Medium. Risk management measures should prevent any release from reaching the identified receptors.	Smoke, localised nuisance.	Not significant if procedures adhered to.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Accidents – Fire (Cont.)						
Releases of potentially contaminated firewater.	Local watercourse network.	Via site drainage system/directly via groundwater	The processing and storage areas which will contain the Specified Waste Operation will possess a purpose-built bund isolated from the site drainage network with a rollover sleeping policeman for vehicle movements. Firewater can be contained within the bunded area with the assistance of booms (if necessary) and the firewater would be tankered off site to an appropriately licensed Facility/Installation. More detail regarding the containment of firewater is provided in the Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP) contained within this permit variation submission.	Low/Medium. Risk management measures should prevent any release from reaching the identified receptors	Contamination of controlled water(s).	Not significant if procedures adhered to.
Accident - Spillage of Potentially Polluting Substances (i)						
Loss of containment of diesel during transfer from bulk tanker.	Underlying ground and/or groundwater.	Downward migration through made ground.	During any transfer of any diesel, checks are undertaken to ensure all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred. A member of AMG will supervise the unloading of fuel at all times. The couplings are also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured. Integrity checks and maintenance of pipework, tank and bund will be undertaken as part of the Company's PPMR. A copy of which is provided in Appendix III.	Low. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater.	Not significant if procedures adhered to.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Accident - Spillage of Potentially Polluting Substances (i) (cont.)						
Loss of containment of diesel during transfer from bulk tanker (cont.)	Underlying ground and/or groundwater.	Downward migration through made ground.	A concrete pad with drain and three-part interceptor is in place to prevent any contamination from entering the soakaway. Site personnel are trained in the AMP (ECL.008.01.04/AMP) (contained in Appendix II) which details the required response in the event of loss of containment. Spill kits are well stocked and placed in strategic locations on site.	Low. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater.	Not significant if procedures adhered to.
Accident - Spillage of Potentially Polluting Substances (ii)						
Spillage of diesel during transfer to the mobile plant.	Underlying ground and/or groundwater.	Downward migration through made ground.	A concrete pad with drain and three-part interceptor is in place to prevent any contamination from entering the soakaway. During any transfer of any diesel, checks are undertaken to ensure that all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred. The diesel filling pump is locked when not in use to prevent spillage and theft. Integrity checks and maintenance of pipework, tank and bund will be undertaken as part of the Company's PPMR. A copy of which is provided in Appendix III. Site personnel are trained in AMP (ECL.008.01.04/AMP) (contained in Appendix II) which details the required response in the event of loss of containment. Spill kits are well stocked and placed in strategic locations on site.	Low. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater	Not significant if procedures adhered to.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Accident - Major System Failure/Loss of Mains Electrical Power						
Accumulation of raw material waiting to be processed creating potential for dust/ particulate emissions	Human population in the surrounding area.	Release to air – windblown dispersion in atmosphere	AMG have pre-determined storage capacity limits which will not be exceeded in the event of major system failure/loss of electrical power. Transport companies will be contacted to ensure hauliers do not arrive at site to unload raw material in the event of major failure/loss of power. Those who cannot be contacted will be redirected to another appropriately licenced facility/Installation. The PPMR includes maintenance and inspection of all process equipment to ensure good operational working order. This reduces the risk of complete failure. If major system failure or loss of power occurs all operations will be halted, repaired using specialist contractors who will resolve the problem. Competent personnel will then check all areas prior to recommencing operations. If loss of power occurs out of hours, the security company will inform the Site Manager.	Low.	Dust nuisance.	Not significant
Accident - Vandalism						
Vandalism causing any of the above.	Any of the above.	Any of the above.	The Installation is secured by a fence and large gate which is locked when the site is non-operational. A remote closed-circuit television (“CCTV”) monitoring system will be in place maintained by Dyfed Alarms Ltd. Any motion detected out of hours will immediately send an alert to the Site Manager and Weighbridge Operator.	Low.	Any of the above.	Not significant.

Table 4: Risk Assessment (Cont.)

Hazard	Receptors	Pathway	Risk Identification and Management	Probability of Exposure	Consequence	Overall Risk
Accident - Vandalism (cont.)				***Vandalism***	***Vandalism***	***Vandalism***
Vandalism causing any of the above (Cont.)	Any of the above.	Any of the above.	Vegetation is cleared for clear views of possible unauthorised access points.	Low.	Any of the above.	Not significant.

5. SUMMARY

5.1. Results of the Assessment

5.1.1. The results of both the Amenity and Accident Risk Assessments (Table 4) indicate that none of the risks relating to the operations outlined in the submission for permit variation will be significant if operations are managed in accordance with the EMS and the relevant management plans.

5.1.2. To address the potential risks identified, specific management plans have been created, all of which have been submitted as part of this permit variation and are outlined below:

- Noise and Vibration Management Plan (ECL.008.01.04/NVMP);
- Emissions Management Plan (ECL.008.01.04/EMP);
- Pest Management Plan (ECL.008.01.04/PMP); and
- Fire Prevention Plan (ECL.008.01.04/FPP).

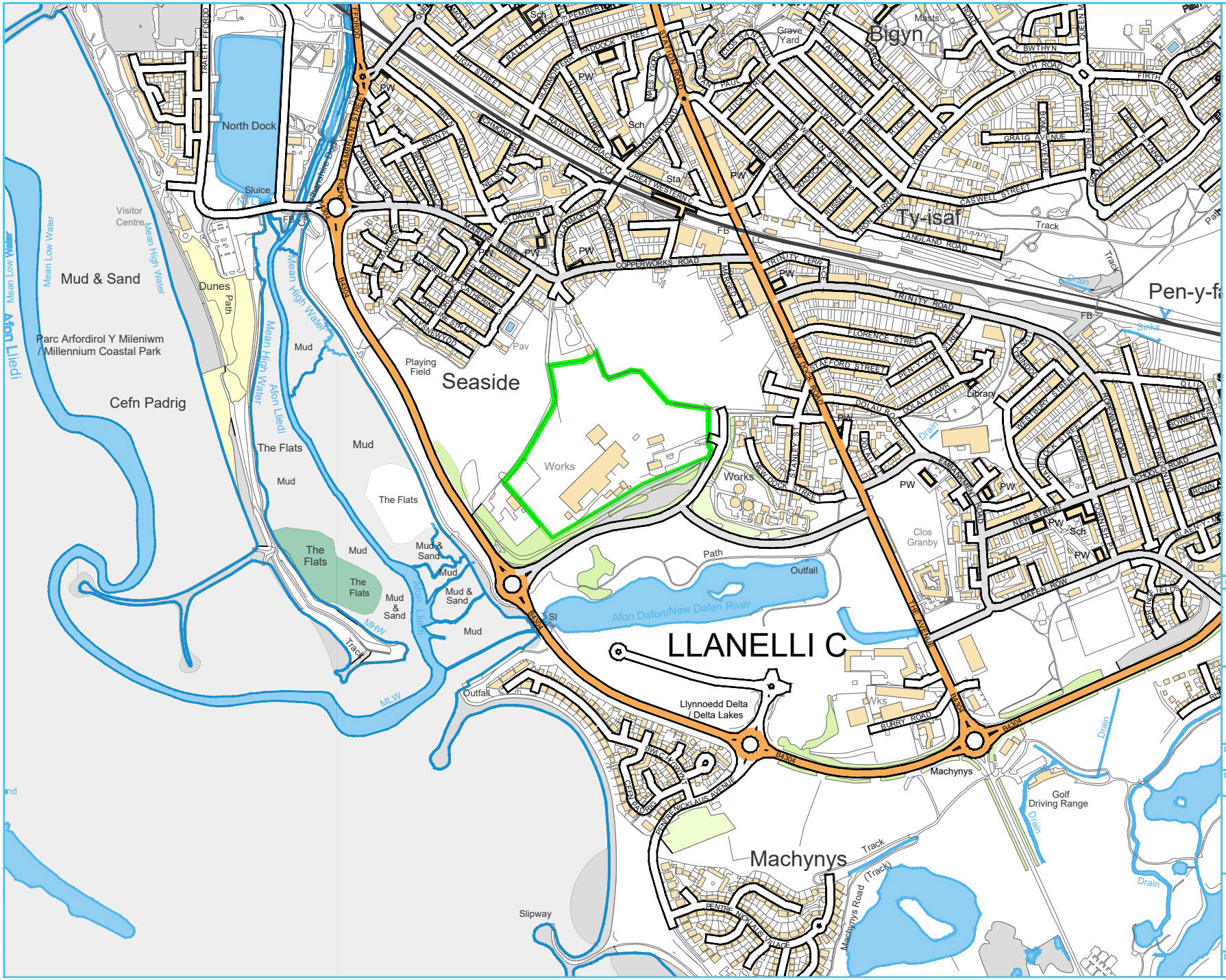
5.1.3. Providing all of the above plans, in addition to the existing EMS procedures including the AMP (ECL.008.01.04/AMP), are implemented fully and adhered to, the overall risks can be considered not significant.

5.2. Conclusion

5.2.1. The risks from the Installation, in terms of accident and amenity risk can be considered not significant provided that all risk management measures are implemented and adhered to.

APPENDIX I
DRAWINGS

SITE LOCATION PLAN (ECL.008.01.04-001)
SITE LAYOUT PLAN (ECL.008.01.04-002)
SENSITIVE RECEPTOR PLAN (ECL.008.01.04-003)



Rev	Date	Details	Chkd

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Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:10K @ A4	GTB	SJ	SB

Drawing Status
FINAL ISSUE

Project Title
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title
SITE LOCATION PLAN

Drawing Number	Rev
ECL.008.01.04-001	-

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m^2)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
- RED DIESEL TANK
- S SOAKAWAY
- I 3 STAGE OIL/WATER INTERCEPTOR
- FIRE PREVENTION PLAN QUARANTINE AREA
- QUARANTINE AREA NON-CONFORMING WASTE (ENCLOSED SKIP)
- WASTE RECEPTION & SAMPLING AREA (10m X 10m)
- ①② WASTE PILE CODES 17-04-05
- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- W1 EMISSIONS POINT TO WATER TO BE REMOVED
- SOUTHERN DRAINAGE LINE TO BE REMOVED

Rev	Date	Details	Chkd

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Client: AMG RESOURCES

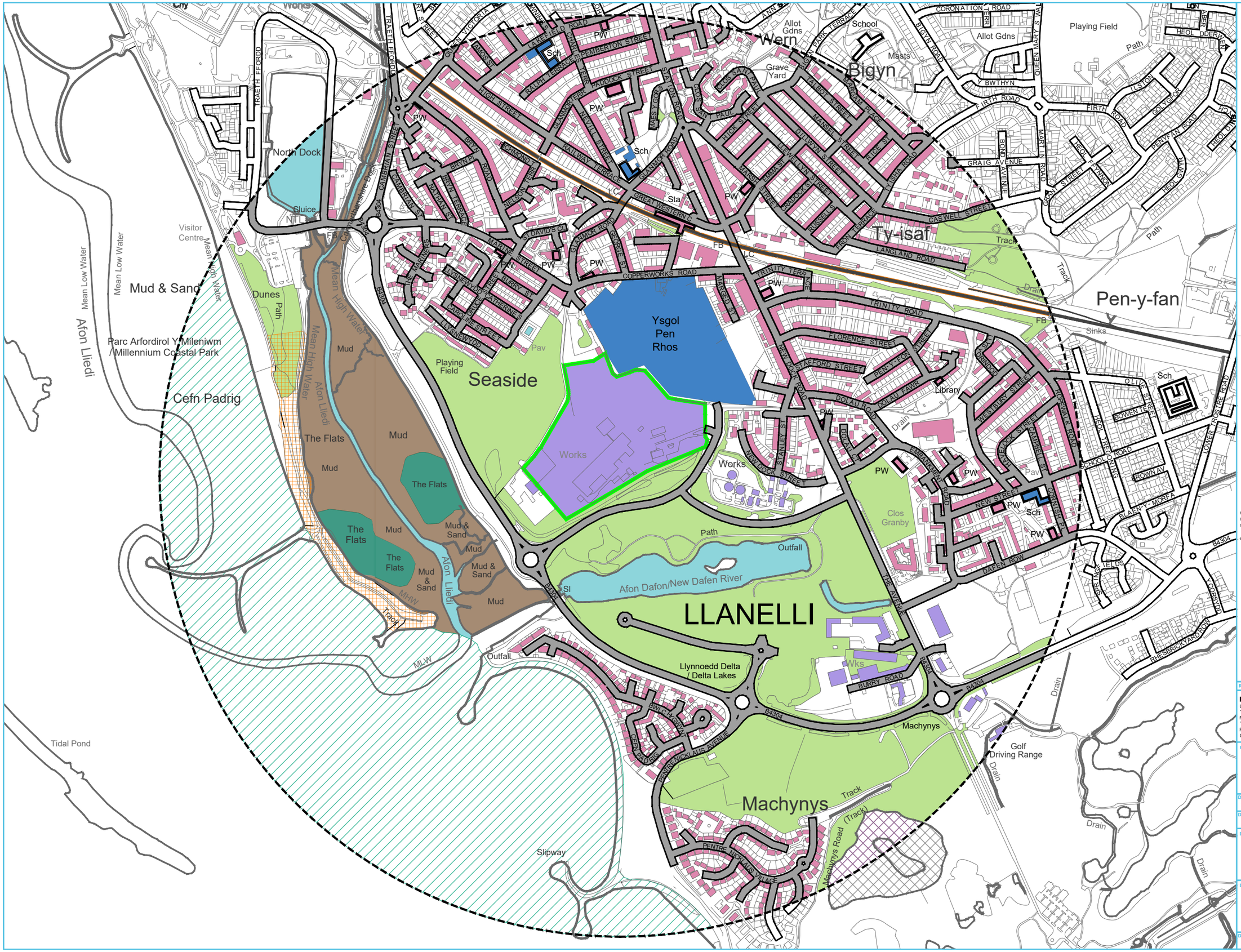
Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title: SITE LAYOUT PLAN

Drawing Number	Rev
ECL.008.01.04-002	-



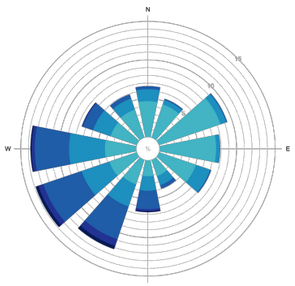
LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- 1000m OFFSET BOUNDARY
- DOMESTIC DWELLINGS
- AREAS OF OPEN SPACE / PLAYING FIELDS
- SCHOOLS
- HOSPITALS
- INDUSTRIAL / COMMERCIAL PREMISES
- ROAD FEATURES
- RAILWAY FEATURES
- SURFACE WATER FEATURES
- MARSH FEATURES
- MUD FEATURES
- SAND FEATURES
- NORTH DOCK DUNES - LNR
- BURY INLET - RAMSAR SITE, SSSI, SAC & SPA
- MACHYNYS PONDS - SSSI

HOURLY MEAN WIND ROSE FOR PEMBREY SANDS

Met Office

NGR: 2365 E 2044 N
SEASON: ANNUAL
ALTITUDE: 3 metres AMSL
Period of data: Jan 2008 ~ Dec 2017



86,515 OBSERVATIONS
0.0% CALM
0.0% VARIABLE

1–10	11–16	17–27	28–33	>33

Hourly mean wind speed (knots)

Rev	Date	Details	Chkd

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Client: AMG RESOURCES

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NEVILLS DOCK
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APPENDIX II
ACCIDENT MANAGEMENT PLAN

ACCIDENT PREVENTION AND MANAGEMENT PLAN

NEVILL'S DOCK, LLANELLI, CARMARTHENSHIRE, SA15 2HD

ECL Ref: ECL.008.01.04/AMP
Version: Issue 1
November 2019

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ACRONYMNS/ABBREVIATIONS IN THE TEXT

AMG	AMG Resources Limited
AMP	Accident Management Plan
BAT	Best Available Techniques
BREF	Best Available Techniques Reference Document
CCTV	Closed Circuit Television
COSHH	Control of Substances Hazardous to Health
EA	Environment Agency
ECL	Environmental Compliance Limited
EMP	Emissions Management Plan
EMS	Environmental Management System
EP	Environmental Permit
FPP	Fire Prevention Plan
FRS	Fire Rescue Service
MSDS	Material Safety Data Sheet
NRW	Natural Resources Wales
NMP	Noise Management Plan
NVMP	Noise and Vibration Management Plan
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
SGN	Sector Guidance Note
TCM	Technically Competent Manager
WT	Waste Treatment

1. INTRODUCTION

1.1. Requirement for an Accident Prevention and Management Plan

1.1.1. Environmental Compliance Limited ("ECL") has been commissioned by AMG Resources Limited ("AMG") to produce an updated Accident Prevention and Management Plan ("AMP") for the Installation at Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD.

1.1.2. This document presents a revised AMP which has been reviewed and updated to take account of current legislation and regulatory guidance, current practices at the Installation, the changes proposed as part of the permit variation application and any relevant issues that have arisen since the last review.

1.1.3. This AMP only relates to the proposed Specified Waste Operation – Non Hazardous Physical Treatment involving the separation and baling of 5 metallic waste types. The AMP will be updated in the event that the 2.2. Schedule Activity recommences. At the time of writing, AMG is investigating the possibility of recommencing de-tinning operations at the Llanelli Installation applying the streamlining techniques undertaken at AMG plants in the United States.

1.1.4. The AMP forms part of AMG's Environmental Management System ("EMS") and the AMP will be reviewed at least every 2 years or as soon as practicable after an accident or after a significant change at the Installation.

1.1.5. The next anticipated scheduled review is November 2021.

2. CURRENT GUIDANCE FOR ACCIDENT PREVENTION AND MANAGEMENT PLANS

2.1. Legislation and Guidance Documents

2.1.1. The Natural Resources Wales ("NRW") guidance documents or Environment Agency ("EA") in the absence of NRW guidance, that are relevant to the activities undertaken at the Installation which have been taken into consideration include the following:

- Online Guidance – *'How to comply with your environmental permit'* (Version 8, October 2014);
- Sector Guidance Note ("SGN") S5.06 – *'Recovery and Disposal of Hazardous and Non-Hazardous Waste'* (Issue 5, 2013);
- *Best Available Techniques Reference Document ("Bref") for Waste Treatment* (October 2018); and
- Online Guidance – '*Risk assessments for your environmental permit'* (Updated Jan 2019) and '*Risk assessments for specific activities: environmental permits'* (Published Feb 2016).

2.2. NRW Online Guidance – 'How to Comply with your Environmental Permit'

2.2.1. EMS online guidance addresses the requirements of an AMP in section: "*Accidents and Incidents*.

2.2.2. This section states that operators must prepare and maintain "*a plan for dealing with any incidents or events that could result in pollution*."

2.2.3. The AMP is based on the risk(s) of pollution that could arise from the Installation's activities and, in particular, the results of the associated risk assessment (see Section 5 of this document).

2.2.4. The AMP is to be communicated to all employees, managers and contractors who work at the Installation.

2.2.5. The plan must identify potential accidents, for example fires, vandalism, flooding or other extreme weather conditions such as drought, heat waves or strong winds.

2.2.6. For each potential incident, it must also state the:

- likelihood of the accident happening;
- consequences of the accident happening;
- measures taken to avoid the accident happening; and
- measures taken to minimise the impact if the event of an accident.

2.2.7. The AMP must demonstrate how the operator will record, investigate and respond to accidents or breaches against the Environmental Permit ("EP") (Permit Reference EPR/BM2381IQ).

2.2.8. The AMP must also include:

- date it was reviewed;
- next scheduled renewal date;
- list of emergency contacts and how to reach them;
- list of substances stored at the site and storage facilities;
- forms to record accidents; and
- site plan which identifies location of any emergency kits or equipment for fire, spill kits and drain caps.

2.2.9. Other areas to consider for the AMP are:

- make emergency services aware of all activities at the Installation;
- ensure the appropriate insurance covers any lean up following an accident, including firewater;
- check whether there are flood risks and register with Flood Warning Direct if required;
- keep up to date with other organisations' advice regarding dealing with extreme weather;
- exercises to test AMP procedures, ensuring all employees are fully trained and competent; and
- have a site evacuation plan and assembly points for all staff.

2.2.10. AMG operate under an Installation Environment Permit and therefore, they are required to display a notice board at or near the site entrance informing the public about the site. The notice board includes:

- the permit holder's name;
- an emergency contact name and telephone number;
- a statement that the site is permitted by Natural Resources Wales ("NRW");
- the EP number; and
- NRW telephone number (03000 653000) and incident hotline (03000 653000).

2.3. SGN S5.06 – Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste

2.3.1. The relevant indicative BAT requirements of Section 2.8 Accidents of Sector Guidance Notes ("SGN") 5.06 have been adopted in this AMP. The requirements are based on the documented system to identify, assess and minimise the environmental risks and hazards of accidents and their consequences.

2.3.2. The formal structured AMP should be implemented which covers the following aspects:

A. identification of the hazards;
B. assessment of the risks; and
C. identification of the techniques necessary to reduce the risks.

2.4. Best Available Techniques Reference Document for Waste Treatments

2.4.1. BAT Conclusion 1 relates to the implementation of an EMS which must incorporate Point XIII - Accident Management Plan.

2.4.2. Section 6.6.5. 'Management Techniques' within the WT BREF states that the AMP is part of the EMS and must identify hazards posed by the plant and the associated risks and defines measures to address these risks. The AMP must also consider the inventory of pollutants present or likely to be present which could have environmental consequences in the event of loss of containment.

2.4.3. Guidance provided in Chapter 2, Section 2.3.13. of the WT BREF has been taken into consideration in the preparation of this AMP.

2.5. EA Online Guidance – 'Risk assessments for your environmental permit' and 'Risk assessments for specific activities: environmental permits'

2.5.1. EA online guidance addresses risk assessments for certain aspects of an Installation's activities including accidents.

2.5.2. The risk assessment approach referred to within the online guidance is based on the source – pathway – receptor approach and has been adopted for the risk assessments undertaken as part of the AMP. This is covered in detail in Section 5 of this document.

3. IDENTIFICATION OF HAZARDS ASSOCIATED WITH THE INSTALLATION'S ACTIVITIES

3.1. Hazard Identification

3.1.1. An environmental risk is posed by any activity which could harm the environment or human health. For a risk to be realised, three separate factors must be in place, namely:

- a source of pollution or hazard;
- a receptor that can be affected by that source of pollution; and
- a pathway between the source and the receptor.

3.1.2. Table 1 details each of the potentially hazardous occurrences that could occur at the Installation and the associated pathways by which the hazard could impact on a receptor (environmental or human).

Table 1: Potentially Hazardous Occurrences

Operational Process/Activity	Hazard	Pathway(s)	Receptor(s)
Lorries transporting waste to the Installation	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
	Noise		
	Pests	Overland routes	Human population in the surrounding area.
	Spillage of fuel from transportation vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Storage of waste prior to processing	Pests (flies, vermin and scavenging birds)	Overland routes	Human population in the surrounding area.
	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
Handling and storage of raw materials, such as diesel	Spillage or leakage of fuel on site during delivery, offloading, storage or handling.	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Waste processing	Dust	Release to atmosphere – windblown dispersion.	Human population and sensitive ecological receptors in the surrounding area.
	Noise		
	Pests	Overland routes	
	Spillage of fuel from processing equipment and vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.
Transportation of waste material off site	Dust	Release to atmosphere – windblown dispersion.	Human population in the surrounding area.
	Noise		
	Pests	Overland routes	
	Spillage of fuel from transportation vehicles	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill.

Table 1: Potentially Hazardous Occurrences (Cont.)

Operational Process/Activity	Hazard	Pathway(s)	Receptor(s)
Major fire	Products of Combustion - smoke emissions from burning of waste and/or infrastructure.	Release of gases/vapour to the atmosphere – windblown dispersion.	Human population and sensitive ecological receptors in the surrounding area.
	Potentially contaminated firewater runoff.	Downward migration through the soil/made ground.	Contamination of groundwater.
Vandalism	Any of the above	Any of the above.	Any of the above.

4. RISK REDUCTION MEASURES AND ACCIDENT MANAGEMENT ARRANGEMENTS

4.1. Introduction

4.1.1. The revised AMP has been written based on the accident management plan requirements detailed in Section 2 of this document.

4.1.2. The accident management arrangements in place at the Installation are based on a combination of robust management procedures, suitable process control measures and appropriate physical infrastructure.

4.1.3. The exact location of the Installation is provided on the Site Location Plan (Drawing Reference ECL.008.01.04-001). The Site Layout Plan (Drawing Reference ECL.008.01.04-002) illustrates the proposed layout of the Installation including the infrastructure arrangements, waste storage and processing areas. The Fire Prevention Plan ("FPP") (Drawing Reference ECL.008.01.04-004) provides the location of the emergency response equipment for use in the event of a spillage or fire. All drawings are provided in Appendix I of this AMP.

4.2. Site Management Arrangements

4.2.1. AMG operate an environmental management system ("EMS") which addresses environmental aspects of the activities at the Installation. The EMS is based on the requirements of the international EMS standard BS EN ISO 14001 and adopts the Standard's Plan, Do, Check, Act approach. The existing system is based on the 14001:1996 standard, however, the system will be updated as described below to follow the 14001:2015 standard.

4.2.2. AMG has appointed the General Site Manager with the overall responsibility for implementing and maintenance of the EMS.

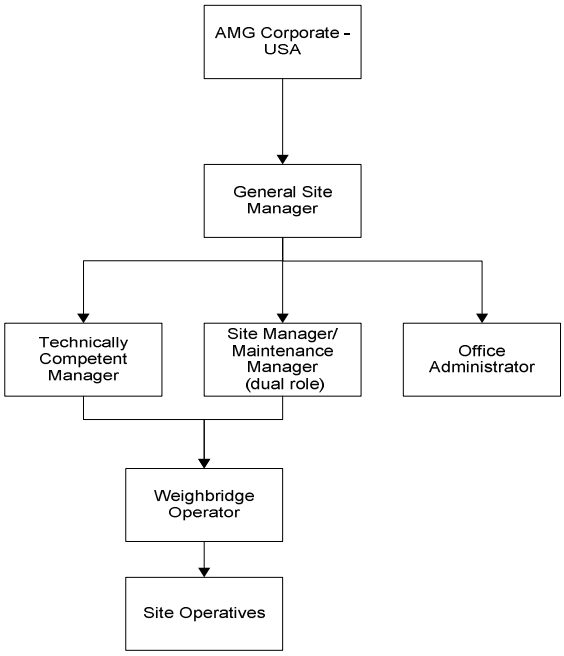
4.2.3. Work instructions, job descriptions and procedures exist for critical areas of AMG's activities and will be issued or made available to the personnel responsible for undertaking these tasks.

4.2.4. Routine preventative maintenance and reactive breakdown maintenance are the responsibility of the Maintenance Manager.

4.2.5. All operational staff at the site are responsible for maintaining an awareness of general process performance during their day-to-day activities on the site. Staff are encouraged to note any unusual occurrences and report these to the Site Manager/Maintenance Manager without delay. If there is a potential impact on the environment or the Installation's neighbours, the General Site Manager will be informed.

4.2.6. AMG's Organogram reveals the structure of the organisation and the different positions which can be seen in Figure 1.

Figure 1: AMG's Organogram



4.3. General Control Measures and Procedures

4.3.1. AMG recognises that planned preventative maintenance is essential for ensuring that site equipment and infrastructure are maintained in good condition. In turn, such maintenance will reduce the risk of avoidable accidents taking place.

4.3.2. Accordingly, there is a comprehensive Planned Preventative Maintenance Regime ("PPMR") at the Installation to ensure that all plant and infrastructure are kept in suitable condition and operating effectively.

4.3.3. The site will undergo daily housekeeping and infrastructure inspections recorded on Daily Site Monitoring Check Sheet (See Appendix IV). Chemical/diesel container integrity checks are also included in these checks.

4.3.4. The detailed PPMR programme is provided in Appendix II of this AMP.

4.3.5. Maintenance is only undertaken by suitably trained and qualified personnel and details of all maintenance carried out are recorded. Specific environmental training is also provided as part of the site's induction programme.

4.4. Substance Inventory

4.4.1. AMG maintains an up-to date inventory of substances used at the Installation. This contains all approved materials/chemicals used at the Installation and their appropriate use. The Material Data Safety Sheets ("MSDS") for each chemical are held on record. The data is compiled as part of the Installation's Control of Substances Hazardous to Health ("COSHH") system.

4.4.2. Table 2 provides the list of chemicals and their associated chemical properties which have been approved and are in use at the Installation. This has been taken into consideration during the assessment of risks (Section 5 of this AMP).

4.4.3. The list of chemicals will be reviewed annually. The inventory will be updated by means of incoming receipts of chemicals and oils and the subsequent issuing of chemicals/oils to individual users/areas of use.

Table 2: Approved Chemicals and their Associated Properties

Chemical Name	Properties (Contained in Material Safety Data Sheets)	Use	Capacity and Storage Arrangements
Red diesel	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Fuel oil for the operation of plant/machinery	15,000l tank bunded to 110% of the total tank capacity fitted with an electronic alarm to prevent overfill. Tank location is provided on the Site Layout Plan (ECL.008.01.04) contained in Appendix I.
Fuchs Renolin B20 VG68 Hydraulic Oil	Toxic to aquatic organisms. May cause long term adverse effects on the environment.	Hydraulic oil for baler	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Fuchs Titan Truck Plus 15W-40	Avoid contaminating waterways. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L. No information available on bioaccumulation potential persistence or degradability.	Engine oil for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Trent GP3 Universal Antifreeze	Must not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.	Anti-freeze for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.
Greasetek EP2 High Specification Grease	Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).	Grease/lubricant for mobile plant	Small quantities stored on a drip tray within the Lab Building as marked on the Fire Prevention and Mitigation Plan (ECL.008.01.04-004) contained in Appendix I.

5. ASSESSMENT OF RISKS ASSOCIATED WITH THE ACTIVITIES

5.1. Risk Assessment Approach

5.1.1. The risk assessment is based on the Source – Pathway – Receptor approach described in Section 3.1. of this AMP.

5.1.2. Other factors which have been taken into account in the preparation of the risk assessment are:

- the likely frequency of occurrence of the event;
- the nature and quantities of any potentially harmful substances that could be released to the environment;
- the environmental fate of any such substance released, taking into account the pathways and potential receptor(s);
- the magnitude – i.e. the seriousness of the effects of any such releases on the potential receptors identified; and
- the risk reduction and control measures in place at the Installation that could mitigation both the likelihood of such an event occurring and the effects of any substances that may be released.

5.2. Risk Assessment

5.2.1. The activities at the Installation which could result in accidents or abnormal operations causing unplanned potentially harmful releases to the environment are identified in Table 3.

5.2.2. For each activity or event, the associated hazards have been identified, together with an assessment of the risk posed by the hazard; the associated risk reduction and mitigation measures in place at the Installation are also described.

Table 3: Risk Assessment

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Dust	Release to atmosphere	Human population in the surrounding area.	Materials will be delivered to the Installation in enclosed vehicles and will be offloaded within the dedicated tipping areas within the Installation. Finished product will also be stored within separate dedicated areas within the Installation. Daily visual inspection of fugitive emissions will be undertaken and if necessary, water suppression techniques will be employed depending on weather conditions. An Emissions Management Plan ("EMP") (Document Reference ECL.008.01.04/EMP) has been prepared to provide detailed assessment of potential dust sources and the associated risk management measures. This EMP should be consulted in addition to this AMP.	Medium Risk management measures should prevent release from reaching identified receptors.	Dust Nuisance	Not significant

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Noise	Release to atmosphere	Human population in the surrounding area.	Site vehicles will be kept to a minimum with all vehicles limited to 10 kph on site. A one-way vehicle route has been designed to reduce the need for vehicular movements on site and hence will reduce the intermittent reversing alarms being generated as required for health and safety purposes. All operations and processing activities are located within dedicated areas of the Installation located in a discrete area of the site to reduce any noise emissions which may reach sensitive receptors. All site plant and equipment will be covered by the ("PPMR") contained within the EMS to ensure adequate maintenance of any parts of plant or equipment of which deterioration may give rise to increased noise levels. Any tipping activity will be supervised by an AMG competent person with drop heights controlled to 3.5m during all tipping of waste materials to reduce generation of noise. A site inspection will be undertaken daily by the Site Manager and/or deputy, monitoring and recording any activities that could give rise to noise outside the Installation boundary. This will be recorded on the Daily Site Monitoring Check Sheet. (Appendix IV). A Noise Management Plan ("NMP") (ECL.008.01.04/NMP) has been prepared provide detailed assessment of potential noise sources resulting from the operations and the associated risk management measures. This NMP should be consulted in addition to this AMP.	Low/Medium Risk management measures should prevent release from reaching identified receptors.	Noise Nuisance	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Pests	Release Overland	Human population in the surrounding area.	Daily inspections of the site will be undertaken to ensure strict housekeeping standards. During the summer months (April-October), storage time on site will be reduced to a maximum of 1 week reducing the likelihood of potential fly infestation to develop. Waste will be stored for a maximum of 3 months outside of this period. This will be monitored by the Site Manager and the waste tracking system will prevent the exceedance of storage times. A Pest Management Plan ("PMP") (ECL.008.01.04/PMP) has been prepared to provide a detailed assessment of potential pest sources resulting from the operations and the associated risk management measures. This PMP should be consulted in addition to this AMP. A specialist pest management company 'Pest Force' are retained on an annual contract by AMG to provide expert assistance and routine site inspections and to ensure that the appropriate controls are being implemented to prevent pest nuisance problems occurring. Monthly visits will be set up which will be the responsibility of the Site Manager/Technically Competent Manager ("TCM") to ensure these visits are undertaken as per the agreed schedule. Records of the visits will be retained by AMG. The pest contractor will also be available on emergency call out in the event of specified incidences of pests.	Medium – High Risk management measures should prevent release from reaching identified receptors.	Pest Nuisance	Low-medium if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Spillage of fuel and raw materials	Overland routes across the site surface and percolation into the ground.	Potentially the groundwater in the vicinity of the spill	During any transfer of any diesel, checks are undertaken to ensure all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred. A member of AMG will supervise the unloading of fuel at all times. The filling coupling is also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured. All other pipework associated with the storage tank is located within the bund. The diesel filling pump is locked when not in use to prevent spillage and theft. Integrity checks and maintenance of pipework, tanks and bunds will be undertaken as part of the Company's PPMR. Site personnel are trained in spill response procedure as outlined in EMS and can be seen in (Appendix V). Spill kits are well stocked and placed in strategic locations on site. Site personnel are trained in spill response procedure as outlined in EMS. Spill kits are well stocked and placed in strategic locations on site. All spillages of hazardous materials should be logged, where spillages >200 litre then additionally the Regulator should be informed. Each kit contains a variety of spill control materials depending on the type of spill hazards identified in each area. Typically, kits contain absorbent booms, flexible absorbent sheeting, absorbent granules, disposal sacks and chemical-resistant drain covers.	Low. Risk management measures should prevent release from reaching identified receptors.	Contamination of ground and groundwater in the vicinity of the spill	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Fire	Release of gases/vapour to air.	Human population in the surrounding area.	The site will be operated in accordance with the approved Fire Prevention Plan ("FPP") (ECL.008.01.04/FPP). This FPP should be consulted in addition to this AMP. The pre-acceptance and acceptance procedures ensure no non permitted waste is accepted at the Installation. Any non-conforming waste that is identified will be removed from the waste and quarantined. The design, installation and maintenance of the Fire Alarm System will continue to be undertaken by PES Fire & Security Systems Ltd. The Fire Alarm System will be monitored out of hours and the Site Manager will attend site immediately to assist the Fire Rescue Service ("FRS") and ensure the FPP is adhered to. A Permit to Work system is in place to control high risk activities including hot works. Preventative maintenance on all electrical equipment is undertaken. Designated smoking areas strategically located away from processing areas and combustible wastes are imposed on site. Emergency procedures are in place and reviewed as part of the EMS. Training will be provided to all site personnel in relation to preventing fires, identifying fire risk with the provision of manual extinguishers and firefighting training provided to nominated personnel.	Medium. Risk management measures should prevent release from reaching identified receptors.	Smoke, localised nuisance.	Low if risk management measures are adhered to rigorously.

Table 3: Risk Assessment (Cont.)

Hazard	Pathway(s)	Receptor(s)	Risk Management/Mitigation Measures	Probability of Exposure	Consequence(s)	Overall Risk
Release of firewater	Overland routes across the site surface and percolation into the ground.	Contamination of controlled water(s)	The Specified Waste Operation will be undertaken on purpose built concrete hard standing with sealed drainage. Any potentially polluting spillages including firewater at the Installation will be captured within the purpose-built bund. Firewater would be tankered off site to an appropriately licensed Facility.	Low. Risk management	Contamination of controlled water(s).	Low if procedures adhered to
Vandalism	Any of the above	Any of the above	The Installation is secured by a fence and large gate which is locked when the site is non-operational. A remote closed-circuit television ("CCTV") monitoring system is in place which is maintained by Dyfed Alarms Ltd. Any motion detected by the cameras is reported to a control centre where a contracted security company view the feed and determine if further action is necessary. Key members of staff are also on call to attend site on such occasions.	Low. Risk management measures should prevent vandalism.	Any of the above	Low if procedures adhered to rigorously.

6. IMPLEMENTATION OF THE ACCIDENT MANAGEMENT PLAN

6.1. Emergency Response

6.1.1. AMG will undertake the necessary actions in order to minimise the environmental consequences of the accident, including, where necessary, taking the appropriate measures to clean up after the accident or incident. The Site Manager/Maintenance Manager and the TCM are responsible for ensuring this is undertaken.

6.1.2. Where relevant, AMG will aim to get the plant back to normal operation as soon as possible.

6.1.3. All relevant personnel at the Installation are made aware of the contingency and control/mitigation measures that are appropriate for dealing with a specific environmental accident. Appropriate training is provided where required; details of any such training provided are recorded in the individual Staff Training Files.

6.1.4. Specifically related to the emergency response required in relation to a loss of containment, the Spill Response Procedure will be followed. This procedure forms part of the Installation's EMS and is provided in Appendix III of this AMP for ease of reference.

6.1.5. As a result of the risk assessment (see Table 3 of this AMP), the following management plans have been prepared and the measures contained within the relevant plan will be implemented during an emergency event:

- Emissions Management Plan ("EMP") (Document Reference ECL.008.01.04/EMP);
- Pest Management Plan ("PMP") (Document Reference ECL.008.01.04/PMP);
- Noise and Vibration Management Plan ("NVMP") (Document Reference ECL.008.01.04/NVMP); and
- Fire Prevention Plan ("FPP") (Document Reference ECL.008.01.04/FPP).

6.1.6. These management plans detail the potential sources identified as a result of the proposed activities and the risk management measures to be followed in the emergency situation.

6.2. Roles and Responsibilities

6.2.1. AMG manages the reporting and investigation of accidents and incidents in compliance with all relevant legislation (including the conditions of the site's Environmental Permit) and Environmental Policy.

6.2.2. The General Site Manager and the Site Manager/Maintenance Manager hold the responsibility for ensuring that all such occurrences are recorded and reported to NRW where applicable.

6.2.3. It is the responsibility of all employees to identify and report environmental accidents and near misses as soon as they occur to the General Site Manager.

6.2.4. It is the responsibility of all managers to proactively participate in the completion of an incident investigation in relation to their processes, work areas or activities.

6.2.5. It is the responsibility of the Site Manager/Maintenance Manager to communicate investigation outcomes to all relevant site personnel. It is also their responsibility to monitor the effectiveness of the Incident Reporting procedure and highlight any findings at the Management Review Meetings.

6.3. Internal Accident Reporting

6.3.1. All accidents, near misses and abnormal events that occur at the Installation are documented within an Incident Report Form (Appendix V).

6.3.2. Information regarding the accident must be collated including witness statements as soon as possible.

6.3.3. The Environmental Risk Assessment relating to the process/work area/work tasks associated with the accident/incident must be reviewed.

6.4. External Incident Reporting

6.4.1. AMG has made all key personnel aware of the procedures for contacting the relevant emergency services and external bodies in the event of an incident or occurrence that could have an impact on the environment or the surrounding receptors. Relevant contact numbers are contained within Section 7 of the AMP and within the relevant sections of management plans.

6.4.1.1. The NRW Site Inspector will be informed immediately and Part A of the Schedule 5 Notification will be submitted to NRW within 24 hours of detection. Part B of the Schedule 5 Notification will be submitted to NRW as soon as practicable.

6.4.2. In the event of an accident or incident arising that could pose a risk to the environment or human health AMG will immediately take the actions detailed in the following documents:

- this AMP; and
- the relevant management plans.

6.4.3. The Site Manager/Maintenance Manager will be responsible for co-ordinating the emergency response.

6.5. Accident Investigation

6.5.1. Following an environmental accident, AMG will undertake an investigation to:

- ascertain the root cause of the accident;
- consider if the response and actions taken were adequate;
- if necessary, put in place measures to prevent reoccurrence; and
- if necessary, review and amend the AMP to reflect any changes that have been implemented.

6.5.2. The Site Manager/Maintenance Manager will be responsible for initiating and undertaking the investigation and implementing any resultant remedial measures that may be required.

6.5.3. The AMP will be reviewed following any significant environmental accident or incident and if the investigation identifies areas for improvement or the requirement for additional measures, the AMP will be updated accordingly. The updated AMP will be sent to NRW for approval following any significant alterations.

6.6. Follow up Procedures

6.6.1. The actions agreed on the Incident Report Form are to be undertaken by the relevant person. At the end of each calendar month the Site Manager/Maintenance Manager and the TCM will check the progress of each action with the individuals concerned.

6.6.2. The Office Representative will maintain records of accident/incidents for a minimum of three years for future reference.

6.6.3. At the end of each year, the Site Manager/Maintenance Manager will send a summary of the actions undertaken in response to any accidents / incidents, together with any outstanding work that may be required, to the Site General Manager and Senior Management Team.

6.6.4. If there are any areas where improvements are required, these shall be implemented as soon as is practicable. All improvements and deadlines will be discussed with NRW to ensure that appropriate timescales can be set.

7. LIST OF KEY CONTACTS

7.1. The key contacts provided in Table 4 should be used in the unlikely event of an incident or accident, such as those detailed in this AMP, occurring at the Installation.

Table 4: Key Contact Details

Operator	**AMG Resources Limited**		
Environmental Permit Reference	**EPR/ EPR/BM2381IQ**		
Site Address	**Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD**		
Name	**Description**	**Contact Details (Office Hours)**	**Contact Details (Out of Hours)**
Internal			
Paul Tobin	General Site Manager	07711107267	07711107267
Mike Vaughan	Site Manager/Maintenance Manager	07801101894	07801101894
Beverly Gravell	Main Office Administrator	01554750971	
Adrian Stewart	Technically Competent Manager	07774903373	
External – Emergency Services			
Fire and Rescue Service Mid and West Wales Fire Service	Non-Emergency	0370 6060699	-
	Emergency	999	
Medical Assistance Ty-Elli Surgery, The Avenue, Llanelli SA15 2DP	Non-Emergency	01302 865865	-
	Emergency Only	999	
Police – Dyfed Powys	Non-Emergency	101	
	Emergency Only	999	
External - Regulators			
NRW	Environmental Regulator Incident Hotline	0300 065 3000 Option 1	
Carmarthenshire County Council	Local Council Emergency Contact Number – Pollution to the Environment	01267 234567	0300 333 2222
External – Key Services			
Dyfed Recycling Services Ltd	Removal of Waste Material	01554 772478	
Castle Environmental Ltd	Containment and Removal of Firewater	02920 496467	
Dwr Cymru Welsh Water	24 Hour Emergency Contact Water Supplier and Waste Water Treatment	0800 052 0130 - Water 0800 085 3968 - Sewerage	

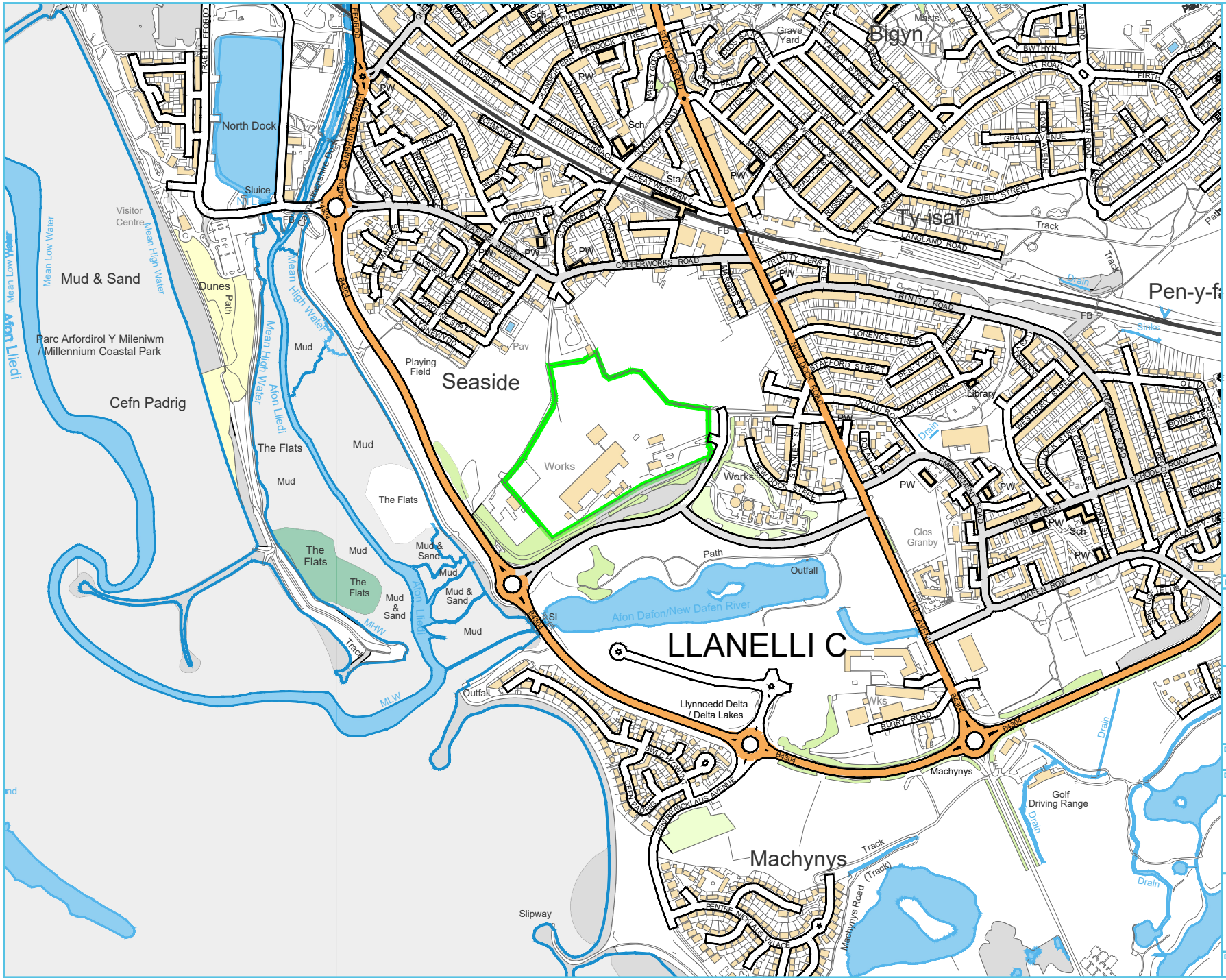
Table 4: Key Contact Details (Cont.)

Operator	AMG Resources Limited		
Environmental Permit Reference	EPR/ EPR/BM2381IQ		
Site Address	Nevill's Dock, Llanelli, Carmarthenshire, SA15 2HD		
Name	**Description**	**Contact Details (Office Hours)**	**Contact Details (Out of Hours)**
External – Key Services			
Western Power Distribution	Energy Supplier	0800 052 400	
Dyed Alarms Ltd	Security System	01267 231595	
PES Fire & Security Systems Ltd	Fire Alarm System	01792 702020	
Pestforce Limited	Specialist Pest Management Company	0333 567 0577	
Environmental Compliance Ltd	Specialist Environmental Advisors	01443 841760	-

7.2. A notice board at the site entrance is present to inform the public about the site. The notice board includes:

- the permit holder's name – AMG Resources Limited;
- an emergency contact telephone number – 07801101894;
- a statement that the site is permitted by the NRW and the EP number – EPR/BM2381IQ; and
- NRW telephone number (03000 653000) and incident hotline (03000 653000).

APPENDIX I
DRAWINGS



Rev	Date	Details	Chkd

Environmental Compliance Ltd.
Unit G1
The Willowford
Main Avenue
Treforest Industrial Estate
Pontypridd.
CF37 5YL
Tel: 01443 841760
Fax: 01443 841761
Email: info@ecl.world
Web: www.ecl.world

Client
AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:10K @ A4	GTB	SJ	SB

Drawing Status
FINAL ISSUE

Project Title
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title
SITE LOCATION PLAN

Drawing Number	Rev
ECL.008.01.04-001	-

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m^2)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
- RED DIESEL TANK
- S SOAKAWAY
- I 3 STAGE OIL/WATER INTERCEPTOR
- FIRE PREVENTION PLAN QUARANTINE AREA
- QUARANTINE AREA NON-CONFORMING WASTE (ENCLOSED SKIP)
- WASTE RECEPTION & SAMPLING AREA (10m X 10m)
- ①② WASTE PILE CODES 17-04-05
- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- W1 EMISSIONS POINT TO WATER TO BE REMOVED
- SOUTHERN DRAINAGE LINE TO BE REMOVED

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
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Treforest Industrial Estate
Pontypridd.
CF37 5YL
Tel: 01443 841760
Fax: 01443 841761
Email: info@ecl.world
Web: www.ecl.world

Client: AMG RESOURCES

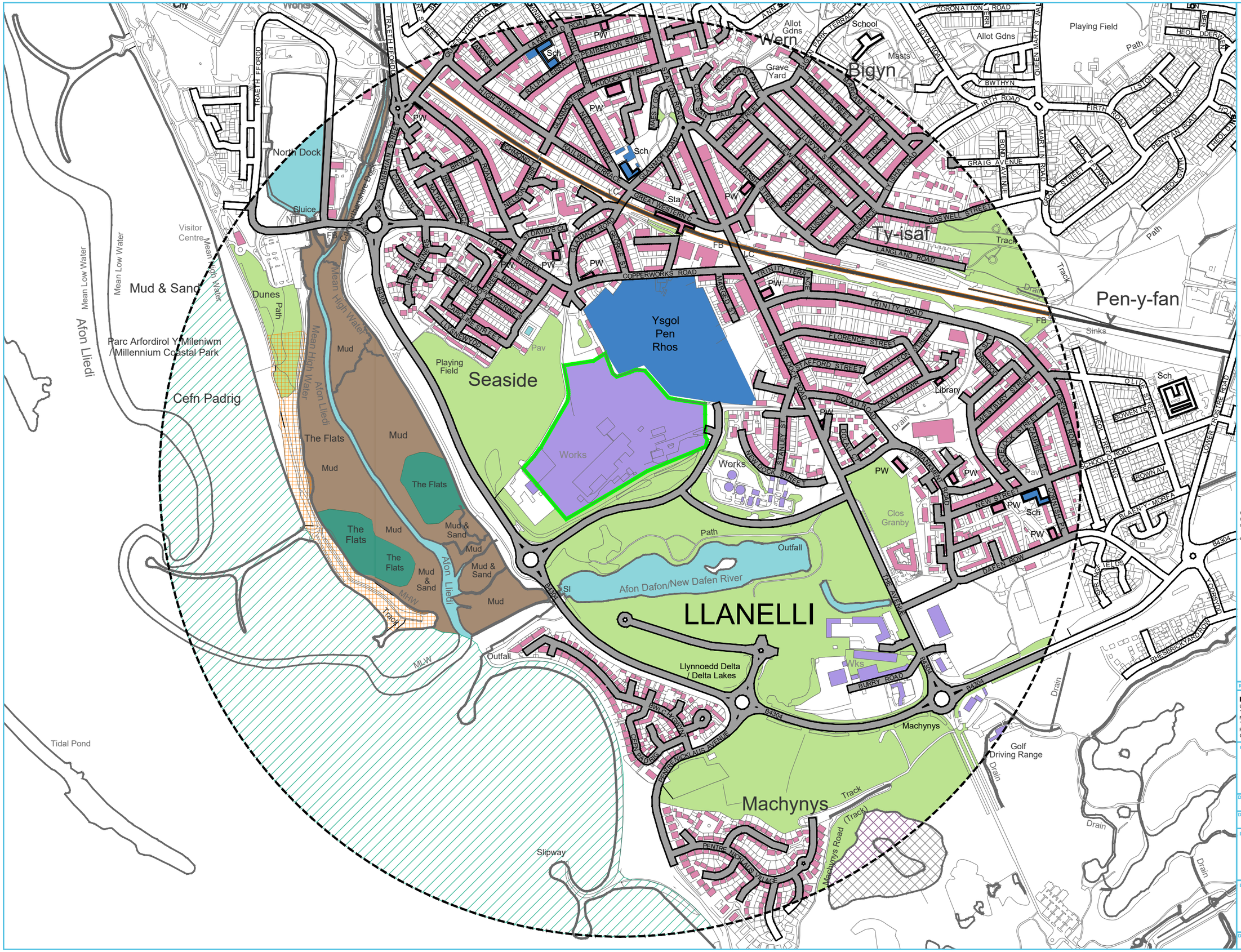
Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title: SITE LAYOUT PLAN

Drawing Number	Rev
ECL.008.01.04-002	-



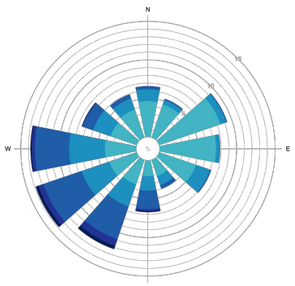
LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- 1000m OFFSET BOUNDARY
- DOMESTIC DWELLINGS
- AREAS OF OPEN SPACE / PLAYING FIELDS
- SCHOOLS
- HOSPITALS
- INDUSTRIAL / COMMERCIAL PREMISES
- ROAD FEATURES
- RAILWAY FEATURES
- SURFACE WATER FEATURES
- MARSH FEATURES
- MUD FEATURES
- SAND FEATURES
- NORTH DOCK DUNES - LNR
- BURY INLET - RAMSAR SITE, SSSI, SAC & SPA
- MACHYNYS PONDS - SSSI

HOURLY MEAN WIND ROSE FOR PEMBREY SANDS

Met Office

NGR: 2365 E 2044 N
SEASON: ANNUAL
ALTITUDE: 3 metres AMSL
Period of data: Jan 2008 ~ Dec 2017



86,515 OBSERVATIONS
0.0% CALM
0.0% VARIABLE

1–10	11–16	17–27	28–33	>33

Hourly mean wind speed (knots)

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
Unit G1
The Willowford
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Pontypridd.
CF37 5YL
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Email: info@ecl.world
Web: www.ecl.world

Client: AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:7.5K @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
SENSITIVE RECEPTOR PLAN

Drawing Number: ECL.008.01.04-003
Rev: -

0m 50m 100m

N

LEGEND

- ENVIRONMENTAL PERMIT BOUNDARY
- PROPOSED SPECIFIED WASTE OPERATION (8365.5m²)
- BUILDINGS
- BUILDINGS TO BE DEMOLISHED
- RAMP
- BUND WALL (300mm)
- CONCRETE HARDSTANDING
- MADE GROUND
- VEGETATED AREA
- SITE ROADWAYS
- Bh BORE HOLES
- SUBSTATION
- RED DIESEL TANK
- S SOAKAWAY
- I 3 STAGE OIL/WATER INTERCEPTOR
- FIRE PREVENTION PLAN QUARANTINE AREA
- QUARANTINE AREA NON-CONFORMING WASTE (ENCLOSED SKIP)
- WASTE RECEPTION & SAMPLING AREA (10m X 10m)
- ①② WASTE PILE CODES 17-04-05
- ③④ 19-01-02
- ⑤⑥⑦ 19-12-02
- ⑧ 19-12-03
- ⑨ 20-01-40
- ROUTE OF EMERGENCY SERVICES
- FIRE ASSEMBLY POINT
- FIRE ALARM
- FIRE EXTINGUISHER C = CO_2 F = FOAM P = POWDER W = WATER
- GAS CYLINDER CAGE
- H WATER HYDRANT
- SPILL KIT
- EMERGENCY INFORMATION PACK
- CHEMICAL STORAGE (e.g. LUBRICANTS)

Rev	Date	Details	Chkd

Environmental Compliance Ltd.
Unit G1
The Willowford
Main Avenue
Treforest Industrial Estate
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Client: AMG RESOURCES

Date	Scale	Drawn by	Checked by	Approved by
19/11/2019	1:2000 @ A3	GTB	SJ	SB

Drawing Status: FINAL ISSUE

Project Title:
ENVIRONMENTAL PERMIT VARIATION APPLICATION
AMG RESOURCES Ltd
NEVILLS DOCK
LLANELLI
SA15 2HD

Drawing Title:
FIRE PREVENTION AND MITIGATION PLAN

Drawing Number	Rev
ECL.008.01.04-004	-

APPENDIX II
PLANNED PREVENTATIVE MAINTENANCE REGIME

AMG RESOURCES - LLANELLI
MAINTENANCE SCHEDULE FOR MOBILES
2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date:												
Forklift				LOLER						LOLER		
Breakdowns												
Cat 962			Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service
Breakdowns												
Container Lifter									Annual Ins Check			
Breakdowns												
Cat 932									Annual Ins Check			
Breakdowns												
Skylift				LOLER						LOLER		
Breakdowns												
JCB 926				LOLER						LOLER		
Breakdowns												
Lid Baler		Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service	
Breakdowns												
Cat 318									Annual Ins Check			
Breakdowns												
Breakdowns												
Breakdowns												
Breakdowns												

LOLER: Lifting Operations and Lifting Equipment Regulations 1998 - Equipment is fit for purpose, appropriate for the task, suitably marked and subject to periodic thorough examination. Records must be kept of all thorough examinations and any defects reported to both person responsible for equipment and the relevant enforcing authority.

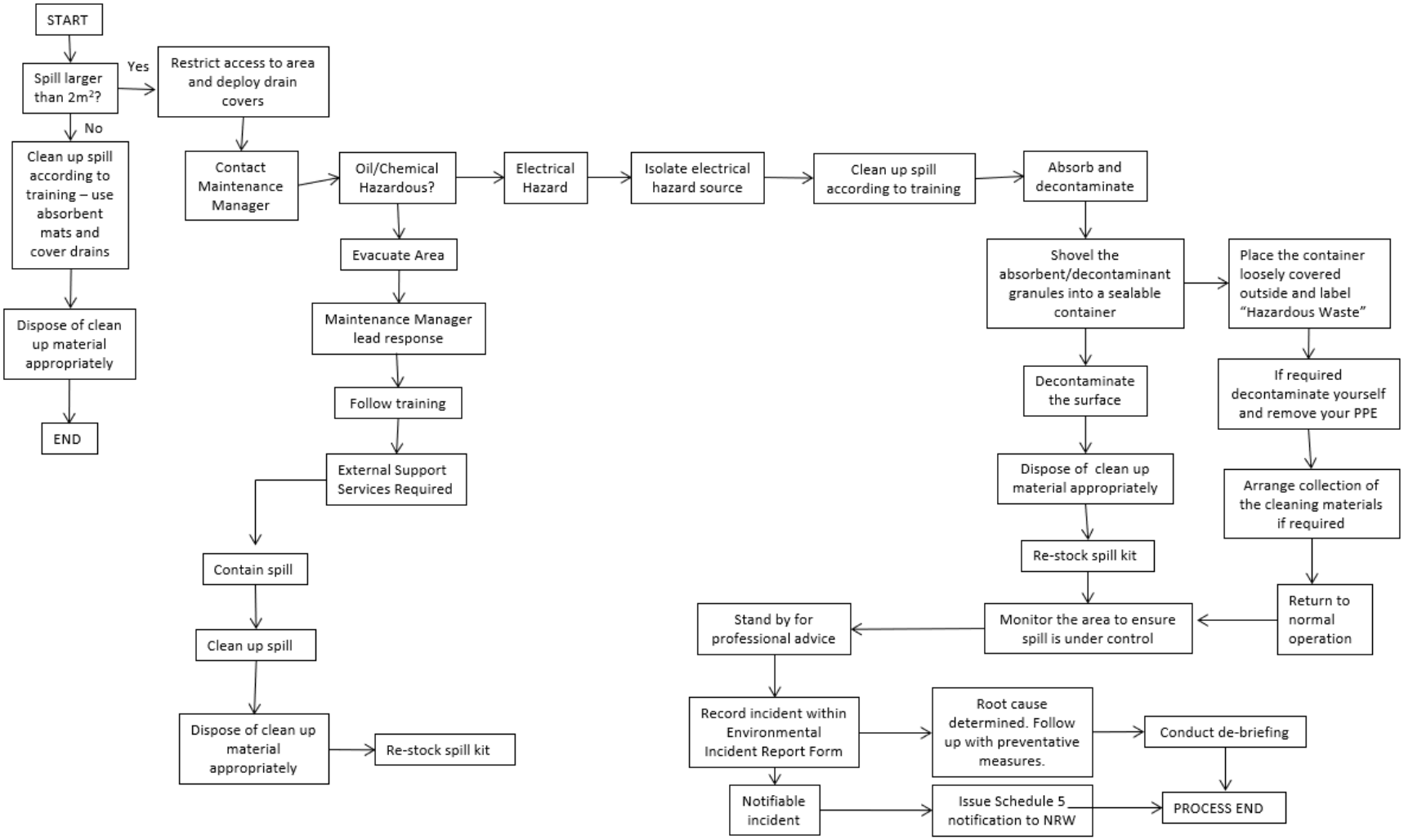
X = Scheduled P= Partial C = Completed N= Not Completed

APPENDIX III
SPILL RESPONSE PROCEDURE

SPILL RESPONSE PROCEDURE

In the event of a spill of any substances you are required to stop, contain and clean up the substance. You must understand the safety requirements of all substances when dealing with them. You can find the required information on the Material Safety Data Sheet provided in the storage area for the substance.

Follow the steps shown in the flow chart below in case of spillage:



APPENDIX IV
DAILY SITE MONITORING CHECK SHEET

AMG RESOURCES

DAILY SITE MONITORING CHECKSHEET

INSPECTION	COMMENTS	ACTION TAKEN	RESPONSIBLE PERSON
Meteorological Conditions			
Details of Operations			
Visual Obs (e.g. dust) Storage & processing areas, weighbridge and internal roads			
Dust Suppression. Required? If yes, provide details.			
Presence of pests/litter or mud			
Presence of noise and/or vibration			
Any Other Comments:			

Name: Job Title: Date:

APPENDIX V
INCIDENT REPORT FORM

ENVIRONMENTAL INCIDENT REPORT FORM

Section 1 – To be completed by Employee

Name of person involved				**Date of Incident:**	
				Time:	
Job Title:				**Supervisor name:**	
Incident Details					
Location of Incident					
Incident Type (please circle)	Fire	Spillage	Emissions related	Pest related	Other (provide details)
Consequence of Incident (please circle)	Environmental Damage	Nuisance to Sensitive Receptors	Property Damage	Near Miss	Other (provide details)
Witness names:					
Witness Statement (State what you were doing and what happened):					

Section 2 - To be completed by Management

At the time of the incident:

(a) Should the employee have been on the premises?	Yes/No
(b) Was he/ she carrying out normal duties?	Yes/No
(c) Was he/she acting in accordance with the company rules?	Yes/No
(d) Was he/she trained and competent in the task being carried out?	Yes/No
(e) Was the equipment used in a safe condition and maintained?	Yes/No

Provide details on a separate sheet, if any answer is No.

State immediate actions which were taken on detecting the incident:

State actions to prevent reoccurrence:

Completion and Close Out of Actions (please circle)	Yes	No Details of Follow Up Required:

Signature of Employee Recording Incident: **Date:**

Signature of Site Manager: **Date:**

APPENDIX III
PLANNED PREVENTATIVE MAINTENANCE REGIME

AMG RESOURCES - LLANELLI
MAINTENANCE SCHEDULE FOR MOBILES
2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date:												
Forklift				LOLER						LOLER		
Breakdowns												
Cat 962			Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service
Breakdowns												
Container Lifter									Annual Ins Check			
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Breakdowns												
Skylift				LOLER						LOLER		
Breakdowns												
JCB 926				LOLER						LOLER		
Breakdowns												
Lid Baler		Qtrly Service			Qtrly Service			Qtrly Service			Qtrly Service	
Breakdowns												
Cat 318									Annual Ins Check			
Breakdowns												
Breakdowns												
Breakdowns												
Breakdowns												

LOLER: Lifting Operations and Lifting Equipment Regulations 1998 - Equipment is fit for purpose, appropriate for the task, suitably marked and subject to periodic thorough examination. Records must be kept of all thorough examinations and any defects reported to both person responsible for equipment and the relevant enforcing authority.

X = Scheduled P= Partial C = Completed N= Not Completed

APPENDIX IV
EMS SITE CHECKS

AMG RESOURCES

Version: 1
Date: November 2019

EMS SITE CHECKS

INSPECTION	FREQUENCY	COMMENTS	ACTION TAKEN	RESPONSIBLE PERSON
Security Measures Infrastructure e.g. fencing, gate, entrance doors Operation of CCTV Any breaches of security/raised alarm of intrusion	Daily			
Housekeeping Surfaces clean and clear of waste/debris and clean No protruding objects Vehicle and pedestrian routes clear General office waste placed in 770l dedicated containers Storage areas orderly Site welfare in clean and working condition	Daily			
Infrastructure Surfacing is in good condition (i.e. no cracks or depressions) Block bay walls are in good condition (i.e. no cracks) Block bay covers are in good condition and in place Bunding is in good condition and area clear of water/debris	Weekly			
Machinery/Plant Clean Down and Blowdown Required? Daily Plant Inspection Checksheet completed	Daily			
Emergency Equipment Fire Extinguishers in place and fully stocked First Aid Kit in place and fully stocked Fire alarms operational Emergency lighting in working order	Weekly			
Spillage Response Any evidence of spillages Spill kits in place and fully stocked	Daily Weekly			
Any other observations/issues noted:				

Assessor Name: **Job Title:** **Date:**